

# pro sound

NOW IN  
**PSN**  
ProAudio  
Review

new

Volume 37 No. 1

www.prosoundnetwork.com

January 2015



PHOTO BY DAVID GOGGIN

**MASTERWORKS**—Pictured in the cutting room at Bernie Grundman Mastering behind one of five custom consoles built in-house with all discrete electronics are (L-R): mastering engineers Brian "Big Bass" Gardner, Mike Bozzi, Chris Bellman, Joe Bozzi, Scott Sedillo, Patricia Sullivan, and Bernie Grundman. (Not pictured: Paul Grundman.) A total of 32 projects mastered at Bernie's have been nominated for Grammy Awards (see page 16 for a list of this year's technical nominations).

## Studio Essentials: Perennial Favorites

BY STROTHER BULLINS

Years of insightful interviews with top engineers, mixers and producers have taught me a lot, including the truths within a well-worn cliché: the more things change, the more they stay the same. Operating systems, DAW-based software and electronic sound sources may

be constantly changing, but it seems the most commonly preferred hardware components, signal chains and processing trends of our industry's most respected pros are fairly well-established.

There's no doubt that recording engineering is an art largely based on familiarity and nostalgia, poses John McBride, (continued on page 50)

## A Billion Connections

Neutrik's speakON connector, shown below, is one example of the innovative products the company has leveraged into a market-leading position in its 40 years of business. CEO Werner Bachmann recounts the company's legacy for PSN readers.



## Have Console, Will Travel

QSC's TouchMix-16 is the lead review in the first Pro Audio Review in Pro Sound News reviews pages, as PAR reviews are incorporated into PSN beginning this issue.



## Rosy Retail Outlook

BY STEVE HARVEY

If the AES Convention in Los Angeles was any indication, the pro audio

industry seems to have rediscovered its mojo, introducing a slew of new product and technologies, suggesting that 2015 might be rosier for

retailers than the rollercoaster ride of the last few years. "Overall, I think we're anticipating a strong 2015," states Bill Wrightson, senior vice president, technology merchandise for Guitar Center. "I think 2013 and 2014 had their ups and downs. We enjoyed good years, but we're quite bullish about 2015. We're seeing a lot of really good technologies coming out that we think will excite the market across almost all of the categories."

In past years, sales were relatively even across all price points, according to Brad Lunde, founder of

TransAudio Group and Las Vegas Pro Audio, who focuses on recording and post production clients. But now, he says, "We see all of our high-end brands doing well, and the things that represent extreme value do well. But the things in the middle are hard to sell."

There has also been a shift in the way that customers and dealers interact, says Lunde. "Everybody scaled their businesses back with the decline of business back in 2006, 2007. Now business is improving and they're sort of understaffed, but the busi-

(continued on page 52)

153-1SDT  
#BXNRSRFS \*\*\*\*\*AUVTO\*\*3-DIGIT 620  
#0393017 9# PSNA 0393017 B 1401  
|||  
OWNER  
BRUCE BUCHANAN  
NO MAINS LAND STUDIO  
1169 GOURLEY RD  
ROODHOUSE IL 62082-3008  
P0002



**LINE ARRAY TOWERS**  
**"CUSTOM IS OUR SPECIALTY"**



WHEN QUALITY, RELIABILITY AND PERFORMANCE COUNT 800-883-0008 WWW.APPLIEDNN.COM



www.yamahaca.com



QL5



QL1

# Quintuple Collective

**2 Series,  
5 Consoles,  
1 Operating System.**



CL5



CL1



CL3

With seamless file exchange between all 5 models, the CL and QL Series define family. Notable features across the lineup include a Premium Rack, touch and turn functionality, iPad® connectivity, built-in Dante Network interface with the capability to record directly to a computer and direct control of Nuendo Live. Working together to provide integrated solutions for a variety of applications, our Fab Five stand united as one.

**CL SERIES**  
DIGITAL MIXING CONSOLES  
The standards stay, but innovation never ends.

DIGITAL MIXING CONSOLE  
**QL SERIES**  
QL5/QL1

**YAMAHA**  
CA  
commercial audio

Yamaha Commercial Audio Systems, Inc. • P. O. Box 6600, Buena Park, CA 90620-6600 • ©2015 Yamaha Commercial Audio Systems, Inc.  
\*iPad is a trademark of Apple Inc., registered in the U.S. and other countries.





## ENGAGING ARTISTS EVERYWHERE

Jeremiah Slovarp – Owner of Jereco Studios in Bozeman, Montana and Emmy® award-winning Producer/Engineer knows a thing or two about the art of mixing. Working with television giants such as HBO, PBS, Disney and BBC, his impressive resume ranges from commercials to documentaries and so much more.

With a recent studio upgrade to Yamaha's NUAGE Advanced Production System, Jeremiah's workflow has taken a turn for the better. We caught up to him to hear his thoughts on the new hardware.

*"I feel like I can get back to mixing, pushing faders, turning knobs, and just working on a creative console. Previously, after an eight or ten hour day, my hands would be in pain from all the manual movements I had to make being dependent on mouse editing and clicking. With the advent of all the cool and amazing new digital DAW based mixing tools and equipment, I think the industry, in general, has regressed from the art of mixing and working with consoles and large format hardware. But with NUAGE, I appreciate the deliberate move Yamaha has made to enable engineers to get back to mixing and editing as an art form."*

— Jeremiah

**NUAGE**  
Yamaha & Steinberg

 **YAMAHA**   
commercial audio





Just imagine **perfection.**  
You hear it.

### Introducing the 8351 Acoustically Coaxial 3-way Active Monitor

In Genelec's quest to make the best even better, our challenge was to break new boundaries in audio engineering. With two custom designed Acoustically Concealed Woofers™ hidden behind Genelec's advanced Directivity Control Waveguide™ and superior Minimum Diffraction Coaxial mid/tweet driver, the 8351 represents bold and imaginative thinking in form, function and acoustic performance.

The 8351 is also a member of the Genelec Smart Active Monitoring™ family of products. The added flexibility, system integration capabilities and AutoCal™ optimization performance make the 8351 an invaluable tool in any professional audio application. The combination of drivers, amplifiers, enclosure design and SAM™ technology can only be described as the most solid, articulate monitor available in a compact package today!

Genelec Inc. 7 Tech Circle Natick, MA 01760 508 652 0900(t) [genelec.usa@genelec.com](mailto:genelec.usa@genelec.com)

**GENELEC®**



# A Billion Connectors Later: Neutrik At 40

BY FRANK WELLS

Founded by Bernhard Weingartner in 1974, beginning humbly with two employees working out of a barn in Schaan, Liechtenstein, Neutrik AG is marking 40 years of business, market leadership and global reach. The Neutrik group now has eleven subsidiaries worldwide and a distribution network with tentacles reaching almost everywhere in the world. Neutrik expects to ship its one-billionth connector in 2015.

develop test instruments, according to Neutrik CEO Werner Bachmann. "The first product on the mechanical side was the chuck-type XLR strain relief female connector to connect electrical signals; the first product on the electrical side was a mechanical recorder for frequency response recording."

In its early years, the Neutrik product line was fairly evenly split between connectors and audio test equipment. That changed in 1985, says Bachmann, when "Neutrik saw a tremendous increase on the connector side which grew even more with the introduction of the screwless XLR connector, Neutrik's X-series." That trend swelled further beginning in 1987, with the launch of Neutrik's loud-speaker connector, the speakON series.

Innovation was only part of the impetus for the company's growth in



Neutrik CEO Werner Bachmann cites "innovation, continuity and quality" as the keys to his company's success.

its second decade, the other major factor being a deliberate initiative to grow its worldwide presence. "As a consequence," says Bachmann, "subsidiaries in the USA [1986], in the

UK, as well as in the People's Republic of China and Hong Kong were established."

In 2000, Neutrik sold off its test equipment business, and began entering into new connectivity categories such as fiber optics and wireless. As evidenced by the ubiquity of its connector products across multiple existing formats as well as in categories that it pioneered (as with the speakON), "Neutrik is proud to emphasize that several Neutrik products are recognized as 'standards' in the audio industry," Bachmann elaborates. "'Setting standards' is not only a Neutrik slogan, it is especially true for the XLR cable connector, the D-shell housing, speakON, powerCON, etherCON and opticalCON."

Neutrik's growth suggests a mar- (continued on page 23)

## briefs

### Dixon Honored By Peers

NEW YORK, NY—Sound designer Bob Dixon has been inducted into the Sports Broadcasting Hall of Fame. Dixon worked on 12 Olympic broadcasts and helped the HBO Sports transition to stereo, the Olympics broadcasts to stereo (1998) and then to 5.1 surround (2008). He retired in 2012. The Sports Video Group (sportsvideo.org)-organized awards are a fundraiser for the Sports Broadcasting Fund.

### PWS Manages Latin GRAMMY RF

LAS VEGAS, NV—Professional Wireless Systems (professionalwireless.com) once again provided a custom Telex, Lectrosonic and Shure-anchored RF communications package for Univision's live broadcast of the 15th annual Latin GRAMMY Awards green carpet pre-show and main event. The PWS team, led by lead RF coordinator James Stoffo, was onsite at the MGM Grand Garden Arena to monitor and manage more than 200 frequencies in use.

### Tracktion Launches In-App Marketplace

SEATTLE, WA—Tracktion Software Corporation (TSC) has added the Marketplace retail portal (marketplace.tracktion.com/app) to its Tracktion 5 music production software, enabling the purchase of third-party musical effects and instruments for background download from within the Tracktion 5 environment. Marketplace is powered by Amazon Web Services with global transactions handled by PayPal.



## Avid Relisted on NASDAQ

BY CLIVE YOUNG

BURLINGTON, MA—Avid returned to the NASDAQ Stock Market on December 8, where it is trading under its usual symbol, AVID. The relisting comes nearly 10 months after the company was delisted on February 25, 2014.

Just weeks prior to the delisting, Louis Hernandez, Jr., president and CEO, discussed the situation in an exclusive interview with *Pro Sound News*, pinning the situation on a judgment-based restatement issue. Calling on his CPA background, he offered, "There are judgments you make in the accounting process and it was determined that we had to review one that's equaled almost eight years worth of data. It had to do with software that when you include improvements to that software, you have to determine how significant it is—and if it's significant or insignificant, it changes the way you account for it."

That, in turn, caused a domino effect that ultimately led to the company reviewing more than 7 million accounting entries regarding every update and upgrade made to every Avid product owned by every customer. Hampering the process was



SUPPORTING INITIATIVES, COVERING ASSETS—The Recording Academy Producers & Engineers Wing and Iron Mountain Incorporated Entertainment Services have renewed their partnership. Iron Mountain, a supplier of archiving, preservation, restoration and transfer services for media and data assets, provides title sponsorship of regional Recording Academy Chapter professional development events and serves as a sustaining member of the P&E Wing Manufacturer's Council. Shown are (l-r): Jeff Anthony, SVP, Iron Mountain Entertainment Services; Maureen Droney, Managing Director, Producers & Engineers Wing; and Barry Cardinael, Project Manager, Iron Mountain Film & Sound Archives.

a switch midway when the company opted to work new auditors who hadn't been involved in previous years' statements. The NASDAQ delisting that followed resulted from an inability to file restatements by the extended deadlines. Hernandez told PSN at the time, "We're confident we will resolve it and get back to where we need to be from a trading perspective. Interestingly, we'll still be a publicly traded company; you just trade on a different exchange and we'll continue to operate. We're a strong company, we're a large company, we generate cash and we have no debt.

Viability is not an issue for us."

In a statement regarding the relisting, John Frederick, executive vice president, chief financial and administrative officer of Avid, noted, "We believe this milestone offers current and future Avid shareholders an exciting opportunity to share in the success of our business through improved access to our common stock. We look forward to generating sustainable, profitable growth as we continue to execute on our plan to unlock the full potential of Avid."

Avid  
www.avid.com





## SOUNDRECORDING

**Everybody Likes Pie** . . . . . 24  
Pie Studios on Long Island celebrates 25 years of serving clients ranging from the Rolling Stones to Alicia Keys. Owner Perry Margouloff offers a brief history and talks about recent projects.

**Studio Showcase: Just What The Doctor Ordered** . . . . . 26  
Houston, TX's Sonic Pharmacy recording studio is unique not only for its DIY and indie-minded clientele, but also its one-of-a-kind, 32-channel Flickinger 32NB analog mixing console.

## SOUNDPOST/BROADCAST

**Pursuing Authenticity For *Unbroken*** . 31  
*Unbroken*, the new film directed by Angelina Jolie, was quite the quite the sound job for the four-man audio team. Jolie insisted on totally authentic sound effects from WWII planes and armaments.

**Music Video In A Multi-Format Market** . . . . . 31  
At LiveTV:LA, a new conference, the "Sound+Vision: Perspectives in Live Music TV" panel discussed some of the technical challenges as well as the business opportunities associated with the production and distribution of music and video.

## SOUNDTECHNOLOGY

**Sound Innovations: Apogee Ensemble 30x34 Thunderbolt 2 Audio Interface** . 34  
"Simplicity is the ultimate sophistication" wrote Leonardo da Vinci. That's a philosophy that led Apogee to ask, when developing its latest I/O, "Does complexity enhance workflow, or get in the way of your creative process?"

**Pro Audio Review in PSN** . . . . . 35, 36, 37, 38, 39  
QSC TouchMix-16; Garritan/Abbey Road CFX Concert Grand; Sonoma Wire Works GuitarJack 2 USB; Corning Thunderbolt Optical Cables; CME Xkey USB; Gruv Gear Club Bag; Emotiva Pro Stealth DC-1; Etymotic Research Inc. Music-PRO Earplugs

## SOUNDPRODUCTS

**Studio Products** . . . . . 40  
**SR Products** . . . . . 41

## SOUNDREINFORCEMENT

**Storming Bastille** . . . . . 42  
Up-and-coming UK pop act Bastille just finished its first major US tour, which included a stop at New York's famed Radio City Music Hall. We chat with FOH engineer Paul "Coop" Cooper about the ins-and-outs of the Thunder Audio production.

**Live Sound Showcase: Hot-Blooded Hits** . . . . . 44  
Veteran rock act Foreigner still performs all over the world. While the band's engineers use favorite gear they know well, they're not above trying something new—as was the case during a recent two-night stand in Atlantic City, NJ.

## DEPARTMENTS

|                  |    |
|------------------|----|
| Sound Business   | 5  |
| Classifieds      | 55 |
| Sound People     | 54 |
| Advertiser Index | 57 |
| Company Index    | 57 |

## CHARTS

|             |    |
|-------------|----|
| Tracks      | 28 |
| Centerstage | 48 |



## SPECIAL REPORT

**Studio Essentials: Perennial Favorites** . . 1, 52  
Strother Bullins discusses signal chains that stand the test of time with a cross section of leading recordists discussing some of their best-known work.

## COLUMNS/REVIEWS

|  |    |
|--|----|
| softwaretech   | 29 |
| Craig Anderton rolls the dice playing the Compatibility Game.  |    |
| viewfromthetop   | 56 |
| Brian Bradley, GM of the Loudspeaker, Microphone and Headphone Strategic Business Unit at JBL Professional considers his company's effective past and competitive future in those markets. |    |
| music,etc.   | 58 |
| Jaques Sonyieux talks with two-time Juno award winner Dan Mangan + Blacksmith about constructing the act's lyrical and atmospheric new album, <i>Club Meds</i> .                           |    |

### follow us ONLINE

**subscriptions:**  
[www.mypsnmag.com](http://www.mypsnmag.com)

**facebook:**  
[www.facebook.com/pages/pro-sound-news-magazine/71616690976](https://www.facebook.com/pages/pro-sound-news-magazine/71616690976)



**online:**  
[www.prosoundnews.com](http://www.prosoundnews.com)

**twitter:**  
[www.twitter.com/ProSoundNews](https://www.twitter.com/ProSoundNews)



Studio furnishings that provide iconic styling and comfort for your mind and body as well as your control room. Argosy makes console and electronics enclosures for nearly every application.

David Atkins - Director of Design

## Dual15L workstation

NEW! Extended version for dual 27" monitors. Available in classic length too.

- Sleek ergonomic styling
- Powder coat finish panels
- Steel leg assemblies
- Mahogany trim available
- Optional rack configurations
- Low profile monitoring platform
- Elevated design for sonic transparency
- Ample knee room
- Internal shelving
- Available for 88 note keyboard too

[www.ArgosyConsole.com](http://www.ArgosyConsole.com) 818.934.0144 Toll-free 800.315.0878







## UNCOMPROMISING AUDIO CLARITY

Introducing Shure **ULX-D**® Digital Wireless. With unmatched RF spectrum efficiency, transparent 24-bit digital audio, and intelligent, scalable hardware, **ULX-D** is the clear breakthrough in wireless performance. Learn more about the next generation of digital wireless audio at [www.shure.com](http://www.shure.com).

### SYSTEM FEATURES

#### AUDIO

- 24-bit/48 kHz transparent digital audio
- 20 Hz – 20 kHz frequency range
- > 120 dB dynamic range
- Wide selection of trusted Shure Microphones

#### RF


- Up to 64 MHz overall tuning range (region dependent)
- Up to 17 active transmitters in one 6 MHz TV channel
- High Density mode greatly increases number of channels
- Rock-solid signal stability over the entire range
- Optimized scanning selects the cleanest frequencies available


#### HARDWARE

- Single, Dual and Quad receiver form factors
- AES 256-bit encryption for secure wireless transmission
- Ethernet networking for streamlined setup
- Wireless Workbench® 6 Software
- AMX/Crestron control
- Rugged metal housing on both transmitters and receiver
- Dante™ digital networked audio
- Advanced Shure rechargeability options


#### RECHARGEABLE BATTERY


- Advanced, intelligent Lithium-Ion chemistry
- Up to 11 hours of use on a single charge
- Battery life meter accurate to 15 minutes
- Full charge in 3 hours


 Transparent  
24-Bit Digital Audio

 Spectral Efficiency  
& Signal Stability

 Lithium Ion  
Rechargeability

 Advanced  
Encryption

 Networked  
Audio & Control

 Scalable  
Hardware

 Intelligent  
Scanning

[www.shure.com/americas](http://www.shure.com/americas)

© 2015 Shure Incorporated

**SHURE**<sup>®</sup>  
LEGENDARY  
PERFORMANCE™



FRANK WELLS  
fwells@nbmedia.com



## The Character Of Passionate Characters (Redux)

Five years ago in this space, I wrote an editorial that talked about how the old adage that all businesses are people businesses seems uniquely apropos for professional audio. I used an example of a client engineer from my studio tech days, an individual who remains among the best engineers I've ever met. Indulge me for quoting myself:

"He was also as fast a mixer as I've seen. In those days, a song a day was the common time allotment for mixing. He'd arrive at 9 a.m. and start his mix, often tasking the console and mix room by attacking the mix in new and innovative ways. When we had the somewhat experimental and cumbersome AT&T DisQ mixing system hooked up to our SSL, he'd try to play 'Stump The Tech' and say (I'm paraphrasing), 'Now, when I mix, I sometimes like to route the signal this way and use this other capability of the console; how do I do that with this digital thing?' I'd ponder signal flow for a few moments and give him a way to work how he wanted. He'd in turn ponder the awkwardness of my solution, turn around and press Play, listen to the analog console, listen to the digital mixer core that was pretending to be the console (the saving grace of the DisQ being that it sounded very good), then turn back to me and say, 'Damn, it still sounds better. Tell me how that

signal flow went again.' Despite his best efforts, technology rarely slowed him down. Typically by 10:30 a.m., the mix was nailed and he was left waiting for the producer to arrive late afternoon to bless his efforts. Perhaps a little ADD, he'd then try to come up with a way to entertain himself for the remainder of the day, cutting up and generally entertaining all around him."

Characters lend pro audio character.

I didn't identify the individual at the time, but it was John Hampton. It is with profound grief that I point you to a brief obit on page 12, which could be an entire biography and still not capture the essence of the man.

The passion for music and sound and the jones for technology are driving motivations for audio pros. They also are the glue that binds us as people. Upon that foundation, we build relationships that are lifelong. I'm truly honored to call such people as John "my friend." That I have to more frequently use the past tense is a sad thing indeed. Just as I was sav-

ing this column, news comes that Ardent Studios founder and Hampton's mentor and partner, John Fry, has also passed. Mourning will radiate even further and deeper out of Memphis.

Newbies in our industry tend to quickly learn the value of relationships. What you know might get you in the door, but there're a lot of people armed with similar knowledge. Who you are, and who you know, are the real foundation for a career, laid atop a gravel bed of knowledge. Make the most of opportunities to interact with the characters that lend pro audio character.

A bit of business: As was announced in last month's *Pro Audio Review*, beginning with this issue, *PAR* review content in print will be wrapped into the pages of *Pro Sound News*, and will continue to be found online at [prosoundnetwork.com](http://prosoundnetwork.com). As the print magazines share a common mailing list already, this move is purely practical. Strother Bullins, *PAR* editor for many years and the person who can be credited with cultivating the best roster of peer reviewers in our industry, will expand his role, becoming Reviews Editor across the entire NewBay Media AV/Pro Audio division. We are committed to bringing our readers the same quality end-user in-use perspectives that *PAR* readers have come to expect from each issue.

editorial

- FRANK WELLS, editor  
212-378-0400 x535, fwells@nbmedia.com
- CLIVE YOUNG, managing editor/web editor  
212-378-0424, cyoung@nbmedia.com
- KELLEIGH WELCH, assistant editor  
212-378-0423, kwelch@nbmedia.com
- STEVE HARVEY, west coast editor  
818-909-9790, sharvey.prosound@gmail.com
- STROTHER BULLINS, reviews editor  
336-703-9932, sbullins@nbmedia.com
- CRAIG ANDERTON, JAKUES SONYIEUX, ROB TAVAGLIONE, RICH TOZZOLI contributors
- RUSS LONG, senior contributor
- LYNN FUSTON, reviews technical editor

advertising

- CHARLIE WEISS, group publisher  
212-378-0484, cweiss@nbmedia.com
- TARA PRESTON, associate publisher  
917-331-8904, tpreston@nbmedia.com
- JANIS CROWLEY, west coast sales  
415-505-1985, jcrowley@nbmedia.com
- ZAHRA MAJMA, specialty sales  
212-378-0400 x517, zmajma@nbmedia.com

art & production

- NICOLE COBBAN, senior art director
- WALTER MAKARUCHA, JR., associate art director
- FRED VEGA, production manager  
212-378-0445, fvega@nbmedia.com

circulation

- MEG ESTEVEZ, group director, audience development
- MICHELE FONVILLE, circulation coordinator

SUBSCRIPTIONS: PRO SOUND NEWS,  
[www.MyPSNmag.com](http://www.MyPSNmag.com)  
P.O. Box 234, Lowell, MA 01853  
TEL: 888-266-5828  
(U.S.A. ONLY, 8:30 A.M. - 5 P.M. EST)  
978-667-0352 (OUTSIDE THE U.S.)  
FAX: 978-671-0460  
E-MAIL: [newbay@computerfulfillment.com](mailto:newbay@computerfulfillment.com)

NEWBAY MEDIA AUDIO GROUP

- ADAM GOLDSTEIN, executive vice president/  
group publishing director
- RAGAN WHITESIDE, web director
- ROBERT GRANGER, online production manager
- TOM DINNENY, web production specialist

NEWBAY MEDIA CORPORATE

- STEVE PALM, president & ceo
- PAUL MASTRONARDI, chief financial officer
- RICK NG, controller
- ROBERT AMES, vice president of digital strategy & operations
- DENISE ROBBINS, vice president of audience development
- ANTHONY SAVONA, vice president of content & marketing
- RAY VOLLMER, vice president of human resources
- ANTHONY VERBANAC, it director

LIST RENTAL: 914-925-2449,  
[danny.grubert@lakegroupmedia.com](mailto:danny.grubert@lakegroupmedia.com)

REPRINTS and PERMISSIONS:  
For article reprints, please contact our Reprint Coordinator at Wright's Media: 877-652-5295

FOUNDED IN 1978  
BY PAUL G. GALLO

PRINTED IN THE U.S.A.  
INTERNATIONAL EDITION  
Administrative, Advertising,  
& Editorial Offices  
28 E 28th Street, 12th floor  
New York, NY 10016  
TEL: (212) 378-0400  
FAX: (212) 378-0435  
E-MAIL: [pro@nbmedia.com](mailto:pro@nbmedia.com)



# AcousticsFirst.com®

Materials to Control Sound & Eliminate Noise.™

## ToneTiles™ Acoustic Panels

- New Larger Size
- 3 Times Bigger
- More Square Feet
- Same Great Price



### NEW!

2 ft. x 3 ft.

PRINT OR PAINT

Original Size and Custom sizes are also available...

Original 1'ft. x 2'ft.

Toll-Free Number:

# 888-765-2900







"The MixingLink preamp with insert control is the cleanest I've ever heard. I love it!"

**-Tony Visconti**



"The perfect tracking accessory, I can't believe it hasn't been done before."

**-Joe Chiccarelli**



"The perfect box to do vocal fx live, a great idea that sounds and works great!"

**-Vance Powell**



"A huge sounding mic pre in a small pedal. MixingLink puts bass in its place."

**-John Agnello**



"More than a studio Swiss Army knife. Like the classic gear I love, it can sit in a mix in a transparent way yet still impart real tone."

**-Joel Hamilton**



"A superior quality mic pre that stands up against the best mic pres I've ever used."

**-Stewart Lerman**

# Eventide® MIXINGLINK®

High Quality Mic Pre with FX Loop



Check out the video:  
[bit.ly/NAaa0q](http://bit.ly/NAaa0q)  
[eventide.com](http://eventide.com)



"I don't often use a mic pre, but when I do I prefer the MixingLink."

**-Greg Calbi**



# Investing in Your Professional Studio

## COMPUTER AUDIO



Avid Pro Tools

Creation Station 450

Avid Pro Tools | S3

## MONITORS



ATC  
SCM20ASL Pro mk2 (pair)

Focal  
SM9 (left)

## MICROPHONES



Neumann  
U47 FET  
Collector's Edition

Bock Audio  
241

Blue Microphones  
Bottle

Audio-Technica  
AT5040

Manley  
Gold Reference

## PROCESSORS



Universal Audio  
4-710d

Manley  
Core

Dangerous Music  
BAX EQ

Bricasti Design  
Model 7

Rupert Neve Designs  
Portico II Channel

## INTERFACES



MOTU  
16A

Universal Audio  
Apollo 16

Apogee  
Ensemble Thunderbolt

Antelope Audio  
Pure2

Burl Audio  
B80 Mothership

We Carry Gear from These Respected Manufacturers and Many More!

A Designs  
ATC  
AEA  
Allen & Heath  
Antares  
Antelope Audio  
Aphex  
API

Apogee  
Apple  
Audient  
Auralex  
Avalon  
Avid  
Behringer  
Benchmark  
Blue Microphones

Bock Audio  
Bose  
Burl Audio  
Bricasti Design  
Cakewalk  
Chameleon Labs  
Chandler Limited  
Cloud Microphones

Coleman Audio  
Crane Song  
Creation Station  
Crown  
Daking  
Dangerous Music  
Dave Hill Designs  
DiGiGrid  
DPA

Drawmer  
Elynaudio  
Earthworks  
Elysia  
Empirical Labs  
Event  
Eventide  
Focal

Focusrite  
Furman  
Genelec  
Glyph  
Grace Design  
Great River  
IsoAcoustics  
JBL  
JDK Audio

Pro Audio ■ Recording ■ Mixers ■ Monitors ■ Microphones ■ Guitars ■

# 0% INTEREST FOR 24 MONTHS\*

On purchases of select manufacturers' products made with your Sweetwater Musician's All Access Platinum Card between now and January 31, 2015 – 24 equal monthly payments required.



\*Offer applies only to single-receipt qualifying purchases. No interest will be charged on pro no purchase and equal monthly payments are required equal to initial promo purchase amount divided equally by the number of months in promo period until promo is paid in full. The equal monthly payment will be rounded to the next highest whole dollar and may be higher than the minimum payment that would be required if the purchase was a non-promotional purchase. Regular account terms apply to non-promotional purchases. For new accounts: Purchase APR is 29.99%; Minimum interest charge is \$2. Existing cardholders should see their credit card agreement for their applicable terms. Subject to credit approval. \*\*Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit Sweetwater.com/warranty for complete details.

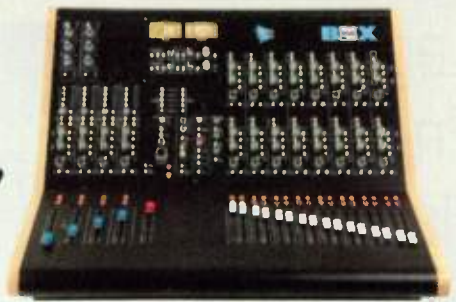


# Begins with a Call to Sweetwater

## MIXERS



Avid  
S6 System



API  
The Box



Behringer  
X32



Solid State Logic  
XL-Desk



PreSonus  
StudioLive 16.0.2



### Call Sweetwater for Your Custom Studio Furniture

Argosy, Malone Design Works, Middle Atlantic Products, On-Stage Stands, RAB Audio, Sound Construction, Sterling Modular

## 500 SERIES



Shadow Hills  
Industries  
Mono Gama

Radial  
PreComp

Purple  
Biz

Burl Audio  
B1D

Maag  
Audio  
EQ4

Rupert Neve  
Designs  
551

Daking  
Comp 500

API  
527

Chandler  
Limited  
Little Devil  
Compressor

Crane Song  
Falcon

API  
500V

JoeCo  
Joemeek  
KRK  
Kush Audio  
LaChapell Audio  
Lauten Audio  
Lexicon  
Lynx

Maag Audio  
McDSP  
Malone Design Works  
Manley  
Martinsound  
Miktek  
Millennia  
Monster Power

MOTU  
Neumann  
Peavey  
PreSonus  
QSC  
Radial  
RME  
Roland

Royer  
Rupert Neve Designs  
Shadow Hills Industries  
Schoeps  
Sennheiser  
Shure  
Solid State Logic  
Sonodyne

Sony  
Steinberg  
Summit Audio  
TC Electronic  
Tannoy  
Telefunken  
Toft Audio  
Tonelux

Toontrack  
Trident Audio Developments  
True Systems  
Tube-Tech  
Universal Audio  
Vintech  
Waves  
Yamaha

Keyboards ■ Drums ■ Live Sound Sweetwater Has All the Gear You Need!

# Sweetwater®

Music Instruments & Pro Audio

(800) 222-4700  
Sweetwater.com

**FREE 2-YEAR WARRANTY\*\***  
Total Confidence Coverage™ Warranty

**FAST, FREE SHIPPING**  
On most orders, with no minimum purchase!

**FREE PRO ADVICE**  
We're here to help! Call today!





## Legendary Engineer John Hampton Passes

MEMPHIS, TN—Grammy-award-winning engineer and music producer John Hampton, known for his work with The White Stripes, Stevie Ray and Jimmie Vaughn, and The Replacements, passed away on December 12 after a long battle with cancer. He was 61.

Hampton's career began in 1977 when he joined Memphis' Ardent Studios, where he initially worked night shifts, and climbed the ranks at the studio, eventually becoming part owner. In a 2007 interview with the *Memphis Commercial Appeal*, Hampton noted he started working at Ardent after reading about the facility's role in a Led Zeppelin album: "I was a big Led Zeppelin fan and when Zeppelin's third record came out, on the back, it said 'Mixed at Ardent Studios—Memphis, TN.' I kind of made up my mind at that point: I want to work at that place."



COURTESY JHAMPTONE.COM

John Hampton with his first Grammy award, won for his work with The White Stripes.

During his tenure at Ardent, Hampton worked with the Gin Blossoms, Travis Tritt, Marty Stewart, Little Texas, Tanya Tucker, Aaron Tippin, Rhett Akins and more. Hampton won two Grammy awards, one for his work with The White Stripes in 2006, and another in 2007 with the Raconteurs.

*Pro Sound News* Editor, Frank Wells, took to Facebook to comment on the passing of his friend. "John was very unique, very intelligent and very entertaining," Wells wrote. "He had a

totally distinctive nature, quirky and great fun. And so talented. He was an infrequent client at Masterfonics in my years there, but we were thrilled when he did come round. Our paths have crossed infrequently over the past several years, but it was a joy to see his always smiling face when we did have occasion to meet again."

Hampton is survived by his wife, Robin Robinson, and his sons Daniel, Ples, Nathan, and Cody. Plans for a memorial service have not been announced yet.

## Memphis Icon, Ardent's John Fry Dies

MEMPHIS, TN—Just six days after the passing of Ardent co-owner John Hampton, Ardent Studios and label founder John Fry suffered a cardiac arrest and died



John Fry

at age 69. Fry was inducted just last month into the Memphis Music Hall of Fame alongside the band Big Star, which Fry mentored and produced. "Mentor" is the most common descriptor of Fry's contribution to the industry. He is survived by his wife, Betty.

*Pro Sound News* will have further coverage of Fry's legacy online and in its next issue.

# POST-APOCALYPSE WIRELESS MICS

Only two things will survive...

Headquarters, this is outpost 34 on location... just another day on the job. Over and out!



lectrosonics.com or 1-800-821-1121

In Canada, call 877-753-2876





**MACKIE**  
**DL32R**

# CONTROL EVERYTHING FROM ANYWHERE

Freedom  
from FOH –  
mix from  
anywhere!

- 01 Hardware:** Flexible, professional I/O in an incredibly compact 3U rackmount design
- 02 Wireless:** From mic pre gain to control over multi-track recording and playback
- 03 Recording/Playback:** Complete wireless control over multi-track direct-to-drive recording and playback
- 04 DSP:** Powerful processing on all inputs and outputs that replaces racks of outboard gear
- 05 Master Fader:** Intuitive wireless control over everything, proven at more than 2 million live mixes

Free yourself from the confines of FOH. With the DL32R, you get 32-channels of powerful digital mixing that's **completely** controlled wirelessly — MIX FREE.

[mackie.com/DL32R](http://mackie.com/DL32R)

iPad is a registered trademark of Apple Inc., registered in the U.S. and other countries. ©2014 LOUD Technologies Inc. All rights reserved. Wireless router and iPad required for operation (not included).



# Oldies and Broadcasters: No Longer Happy Together?

BY THOMAS CAREY

The Turtles, a California rock group that performed from 1965 to 1970, had their first hit record in 1965, a cover of Bob Dylan's "It Ain't Me Babe." Their most successful song, "Happy Together," hit number one

on the charts in 1967. Their music lives on, broadcast over the air and on the internet by Sirius XM, Pandora and others. Two of the founding members incorporated and own Flo & Eddie Inc., which owns the rights to the master recordings of the Turtles music.

Federal copyright statutes, which generally preempt state law, have protected musical compositions since 1831. But that protection benefited only composers (and their assignees) until February 15, 1972. On that date, an amendment to the Copyright Act designed to curtail piracy of phonograph records became effective. This amendment did not give copyright holders the right to prevent others from playing the records for public entertainment (over the air, for example), but only prohibited the unauthorized manufacture of copies.

While this amendment preempted all state law protection for sound recordings to which it applied, it specifically preserved (until 2067) state law protection for sound recordings made before February 15, 1972 ("Oldies"). In 1995, the Copyright Act was further revised to provide copyright holders with a right to royalties for playing recorded performances over the air, but only for transmissions in digital form. This right does not apply to Oldies, which are not eligible for federal copyright protection. Traditional analog radio stations have thus been spared the obligation to pay performance royalties when they broadcast recorded Oldies, but must pay royalties that benefit the composers of that music.

As a result, no federal law benefits the Turtles when their performance of "It Ain't Me Babe" is played on the radio. They did not compose the song and their performance was recorded before February 15, 1972. Commercial radio stations and digital distributors of music such as Sirius XM and Pandora have never paid "performance royalties" for playing Oldies.

It has always accepted wisdom in the music industry that Oldies had no performance-based copyrights under any law, state or federal. That may all be about to change.

In 2013, Flo & Eddie brought suit against Sirius XM in California and New York, alleging infringement of the rights under the copyright law of those states for the unauthorized broadcast of Oldies. Not to be outdone, major record labels including Sony, UMG and Warner brought suit against Sirius XM in California state court on the same theory.

Sirius resisted the claims by argu-

ing that the relevant state courts had never ruled that state copyright law protected performances of recordings and thus no such protection exists. As Sirius XM pointed out, the broadcast and recording industries had for decades operated on the assumption that no law required broadcasters to pay performance royalties for broadcasting Oldies. Were they wrong?

ings made before February 15, 1972. As a result, the potential liability of Sirius XM and other as-yet unnamed defendants (probably including DISH and DirectTV) is quite large.

These lawsuits have a long way to go. The class actions have not yet been certified, damages have not yet been addressed and appeals are likely. Nonetheless, these lawsuits have

"Don't be surprised if you hear fewer Oldies while these lawsuits continue to wind their ways through the courts."

Three courts—two in California and one in New York—have recently ruled that they were.

The federal court reviewed a 1982 California statute pertaining to copyright in sound recordings. That statute, section 980 of the California Civil Code, was modeled after the federal statute but addressed only recordings made *before* February 15, 1972. It gave the "author" of a sound recording the exclusive rights to that recording. The statute contains a single exception, following one found in the federal Copyright Act, permitting unauthorized "covers" of recordings provided that the performers actually perform the music themselves and do not merely electronically copy the sound from the first recording.

This express exception led the federal court to conclude that the California legislature had not intended any additional exceptions to be inferred. The court thus granted Flo & Eddie's motion for summary judgment in its favor. The judge presiding over the California state court proceeding was persuaded by the logic of the federal court ruling and issued an order advising the jury that such performance rights for Oldies exist under California law.

The federal court in New York did not have a state statute to interpret. Instead, it reviewed this history of common law copyright protection in New York State. While it could not find a New York case on point, the court concluded that New York common law would provide the owners of the copyright in sound recordings with a right to restrict their performance. The court said that it was inclined to enter judgment in favor of Flo & Eddie as to liability and proceed to a hearing on damages.

Flo & Eddy brought their lawsuits as class actions on behalf of itself and copyright owners of all sound record-

enormous potential implications for radio stations, webcasters, retail stores, restaurants, nightclubs and any other venues where Oldies are heard, as well as for internet service providers who distribute Oldies.

National broadcasters and internet service providers face a potentially chaotic situation if they are faced with a patchwork of royalty demands arising under numerous state laws. A uniform national licensing system would be a way out of this morass. Such a system is proposed in H.R. 4772 (the "RESPECT Act"), which would extend to Oldies the royalty system now applicable to newer music, and also preempt applicable state law. Perhaps these recent court decisions will light a fire under Congress and prompt it to enact that bill.

Digital transmitters of music have been paying performance royalties on newer music since 1995, so paying royalties on Oldies may be nothing more than a nuisance to them. But terrestrial radio stations have never paid performance royalties, so don't be surprised if you hear fewer Oldies while these lawsuits continue to wind their ways through the courts. And classical music fans should not be surprised if pre-1972 recordings of classical music start to disappear from the airwaves as well. The Turtles' class actions do not discriminate by musical style.

Tom Carey is chair of the Business Practice Group at Sunstein Kann Murphy & Timbers LLP. He assists technology companies and inventors in forming business entities, capital raising, protecting intellectual property and monetizing it.

THERE'S MORE ▶ A longer version of this article, with embedded links to court decisions, can be found online at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015)

**TELEFUNKEN**  
Elektroakustik

**M60**  
SMALL DIAPHRAGM  
FET CONDENSER

EXPERIENCE IT AT  
the **NAMM**®  
show<sup>15</sup>

BOOTH #1878 HALL E  
BOOTH #6721 HALL A

[WWW.T-FUNK.COM](http://WWW.T-FUNK.COM)



# The Pedigree of Professional Audio.

## 676

Tube Microphone Preamp  
Channel Strip



The 676 represents all of the best of dbx's more than 40 years of dynamics processing. The 676 offers a pristine high-gain Class-A tube preamp section that runs on 250 volts, so your signal can be as crystal clean or dirty as you need it to be. The 676 also incorporates the compressor/limiter design from the highly-sought after 162SL, as well as a 3-band parametric EQ with sweepable mids. The 676 provides the user with the perfect channel strip for recording and live applications alike with its military-grade build and vintage-inspired controls, VU metering and state-of-the-art optional digital output card.

For more information about the 676, please visit [dbxpro.com](http://dbxpro.com).

### 676 Key Features

- Class-A Vacuum Tube Preamp with High Voltage Gain
- High-Visibility Vintage VU Meter
- Compressor designed from 162SL
- 3-Band Parametric EQ
- 1/4" and XLR Inputs and Outputs
- Front Panel Instrument Input
- Side Chain Insert
- Optional Digital Output Card

**dbx**  
by HARMAN



# Grammy Production Nominees Named

LOS ANGELES, CA—The Recording Academy announced its nominations for the 57th Annual Grammy Awards to be held on “GRAMMY Sunday,” February 8, 2015, at the Staples Center in downtown Los Angeles.

The engineering, production, mastering and remixing nominations include:

## RECORD OF THE YEAR

- “Fancy” - Iggy Azalea Featuring Charli XCX

The Arcade & The Invisible Men, producers; Anthony Kilhoffer & Eric Weaver, engineers/mixers; Miles Showell, mastering engineer

- “Chandelier” - Sia

Greg Kurstin & Jesse Shatkin, producers; Greg Kurstin, Manny Marroquin & Jesse Shatkin, engineers/mixers; Emily Lazar, mastering engineer

- “Stay With Me” (Darkchild Version) - Sam Smith

Steve Fitzmaurice, Rodney Jerkins & Jimmy Napes, producers; Steve Fitzmaurice, Jimmy Napes & Steve Price, engineers/mixers; Tom Coyne, mastering engineer

- “Shake It Off” - Taylor Swift

Max Martin & Shellback, producers; Serban Ghenea, John Hanes, Sam Holland & Michael Ilbert, engineers; Tom Coyne, mastering engineer

- “All About That Bass” - Meghan Trainor

Kevin Kadish, producer; Kevin Kadish, engineer/mixer; Dave Kutch, mastering engineer

## ALBUM OF THE YEAR

- *Morning Phase* - Beck

Beck Hansen, producer; Tom Elmhirst, David Greenbaum, Florian Lagatta, Cole Marsden, Greif Neill, Robbie Nelson, Darrell Thorp, Cassidy Turbin & Joe Visciano, engineers/mixers; Bob Ludwig, mastering engineer

- *Beyoncé* - Beyoncé

Chimamanda Ngozi Adichie, Drake, Jay Z & Frank Ocean, featured artists; Ammo, Boots, Noel “Detail” Fisher, Jerome Harmon, Hit-Boy, Beyoncé Knowles, Terius “The Dream” Nash, Caroline Polachek, Rey Reel, Noah “40” Shebib, Ryan Tedder, Timbaland, Justin Timberlake, Key Wane & Pharrell Williams, producers; Boots, Noel Cadastre, Noel “Gadget” Campbell, Rob Cohen, Andrew Coleman, Chris Godbey, Justin Hergett, James Krausse, Mike Larson, Jonathan Lee, Tony Maserati, Ann Mincieli, Caroline Polachek, Andrew Scheps, Bart Schouder, Noah “40” Shebib, Ryan Tedder, Stuart White & Jordan “DJ Swivel” Young, engineers/mixers; Tom Coyne, James Krausse & Aya Merrill, mastering engineers

- *X* - Ed Sheeran

Jeff Bhasker, Benny Blanco, Jake Gosling, Johnny McDaid, Rick Rubin & Pharrell Williams, producers; Andrew Coleman, Jake Gosling, Matty Green, William Hicks, Tyler Sam Johnson, Jason Lader, Johnny McDaid, Chris Scafani, Mark Stent & Geoff Swan, engineers/mixers; Stuart Hawkes, mastering engineer

- *In The Lonely Hour* - Sam Smith

Steve Fitzmaurice, Komi, Howard Lawrence, Zane Lowe, Mojam, Jimmy Napes, Naughty Boy, Fraser T. Smith, Two Inch Punch & Eg White, producers; Michael Angelo, Graham Archer, Steve Fitzmaurice, Simon Hale, Darren Heelis, James Murray, Jimmy Napes, Mustafa Omer, Dan Parry, Steve Price & Eg White, engineers/mixers; Tom Coyne & Stuart Hawkes, mastering engineers

- *Girl* - Pharrell Williams

Alicia Keys & Justin Timberlake, featured artists; Pharrell Williams, producer; Leslie Brathwaite, Adrian Breakspear, Andrew Coleman, Jimmy Douglas, Hart Gunther, Mick Guzauski, Florian Lagatta, Mike Larson, Stephanie McNally, Alan Meyerson, Ann Mincieli & Kenta Yonesaka, engineers/mixers; Bob Ludwig, mastering engineer

## BEST ENGINEERED ALBUM, NON-CLASSICAL

- *Bass & Mandolin* (Chris Thile & Edgar Meyer)

Richard King & Dave Sinko, engineers; Robert C. Ludwig, mastering engineer

- *Bluesamericana* (Keb’ Mo’)

Ross Hogarth & Casey Wasner, engineers; Richard Dodd, mastering engineer

- *Morning Phase* (Beck)

Tom Elmhirst, David Greenbaum, Florian Lagatta, Cole Marsden, Greif Neill, Robbie Nelson, Darrell Thorp, Cassidy Turbin & Joe Visciano, engineers; Bob Ludwig, mastering engineer

- *The Way I’m Livin’* (Lee Ann Womack)

Chuck Ainlay, engineer; Gavin Lurssen, mastering engineer

- *What’s Left Is Forever* (Thomas Dybdahl)

Tchad Blake, Oyvind Jakobsen, Jo Ranheim, Itai Shapiro & David Way, engineers; Bernie Grundman, mastering engineer

## PRODUCER OF THE YEAR, NON-CLASSICAL

- Paul Epworth; John Hill; Jay Joyce; Greg Kurstin; Max Martin

## BEST REMIXED RECORDING, NON-CLASSICAL

- “All Of Me” (Tiesto’s Birthday Treatment Remix) - Tijs Michiel Verwest, (John Legend)

- “Falling Out” (Ming Remix) - MING, (Cross-fingers Featuring Danny Losito)

- “Pompeii” (Audien Remix) - Audien, (Bastille)

- “The Rising” (Eddie Amador Remix) - Eddie Amador, (Five Knives)

- “Smile” (Kaskade Edit) - Ryan Raddon, (Galantis)

- “Waves” (Robin Schulz Remix) - Robin Schulz, (Mr. Probz)

## BEST SURROUND SOUND ALBUM

- Beppe: *Remote Galaxy* (Vladimir Ashkenazy & Philharmonia Orchestra)

Morten Lindberg, surround mix engineer, mastering engineer, producer

- *Beyoncé* (Beyoncé)

Elliot Scheiner, surround mix engineer; Beyoncé Knowles, surround producer

- *Chamberland (the Berlin Remixes)* (David Miles Huber)

David Miles Huber, surround mix engineer, mastering engineer, producer

- *The Division Bell* (Box Set) (Pink Floyd)

Damon Iddins & Andy Jackson, surround mix engineers, mastering engineers

- *Epics Of Love* (Song Zuying, Yu Long & China Philharmonic Orchestra)

Hans-Jörg Maucksch, surround mix engineer, mastering engineer; Günter Pauler, surround producer

- *Mahler: Symphony No. 2 ‘Resurrection’* (Benjamin Zander & Philharmonia Orchestra)

Michael Bishop, surround mix engineer, mastering engineer; Elaine Martone, surround producer

## BEST ENGINEERED ALBUM, CLASSICAL

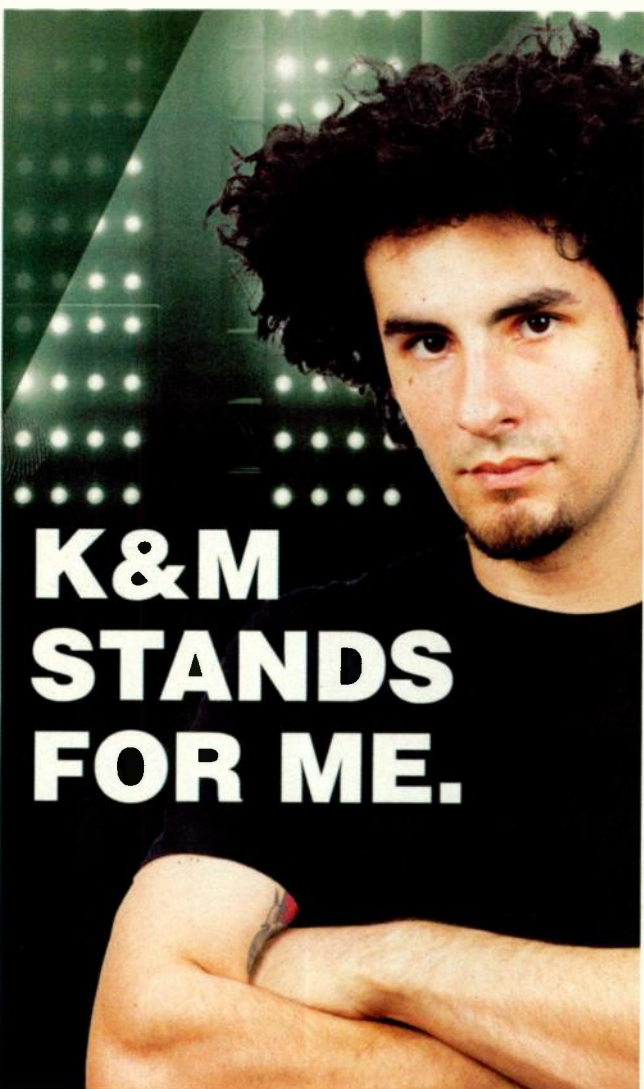
- Adams, John: *City Noir* (David Robertson & St. Louis Symphony)

Richard King, engineer; Wolfgang Schiefermair, mastering engineer

- Adams, John Luther: *Become Ocean* (Ludovic Morlot & Seattle Symphony)

Dmitriy Lipay & Nathaniel Reichman, engi-

(continued on page 30)

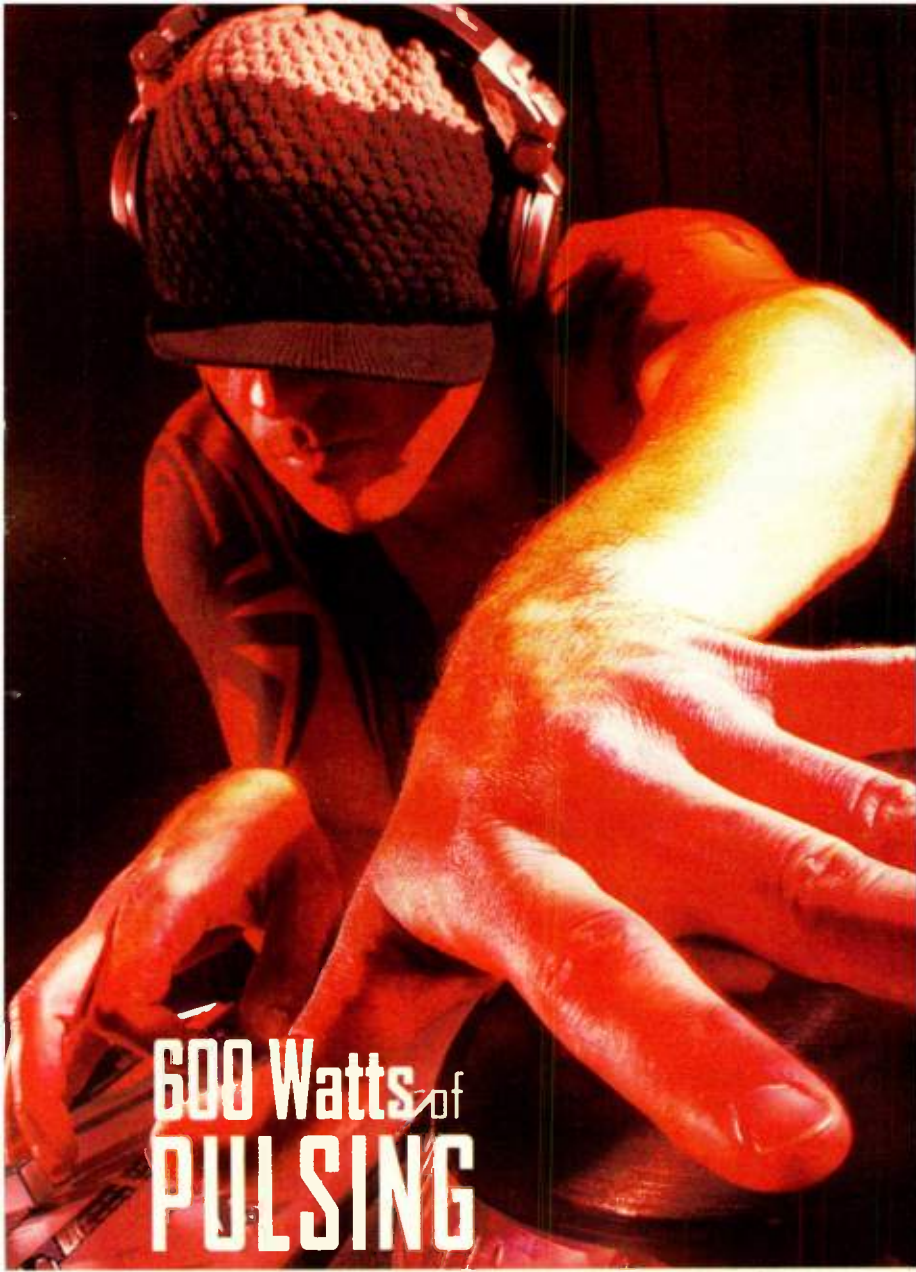


“When I’m out there setting up and breaking down a show every night, the last thing I need is to be messing with a temperamental stand. That’s what I like about K&M stands. They just work. Night after night, tour after tour, they go on and on... like Keith Richards...”

Premium Quality • Made In Germany  
Eco-Friendly • 5-Year Warranty

US Distribution Connolly Music | (800) 644-5268  
connollymusic.com | km-america.com





600 Watts of  
**PULSING**

# POWER

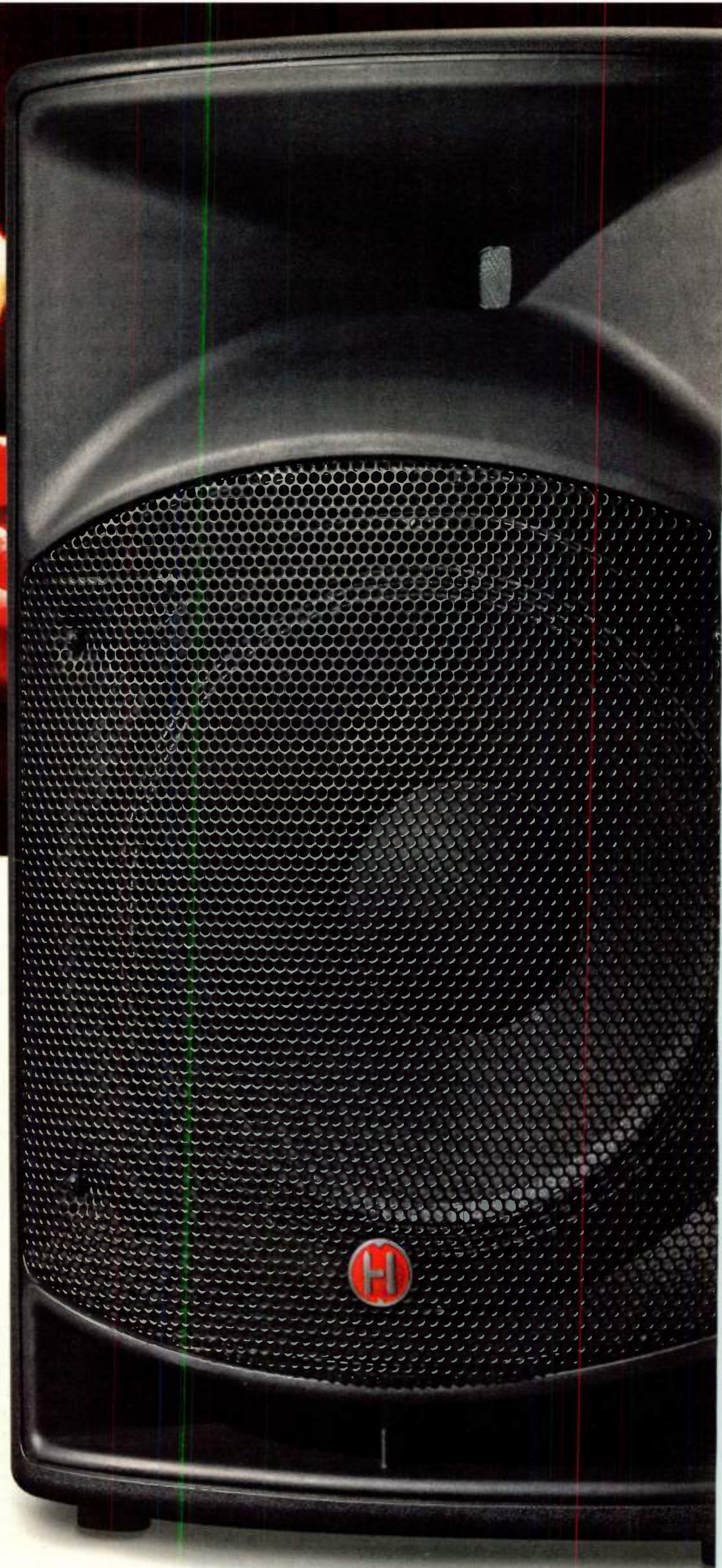
The new Harbinger VâRi Series is designed to bring pulsing power, exceptional sound and a striking new look to any gig, dance-floor, party or event. It's the most affordable and versatile powered loudspeaker ever.

- 600 watt, 2-way system
- 12" and 15" versions
- Built-in 3-channel mixer
- Lightweight, portable and affordable



V2112

V2115



©2014 Harbinger



**HARBINGER**  
HarbingerProAudio.com

Available At These Preferred Retailers



**VâRi**  
SERIES

Harbinger...Message Received!

WRH



## SSL Live Moves to Manchester

MANCHESTER, UK—While the organization HOME is currently building its new performing and visual arts complex, the performance group held a production of Shakespeare's *Romeo and Juliet* at Manchester's historic Victorian swimming baths.

The show was controlled by an SSL Live L500 console, supplied by HD Pro Audio. HD Pro Audio technical director Jasper Gilbert and sound designer Paul Gregory will later install the L500 in HOME's new facility for continued use.

For *Romeo and Juliet*, HOME employed a promenade-style production that moved actors and patrons through three large swimming pools. The main bulk of the action happened in the empty 'female' pool, with the finals scenes on the cross structure in the filled 'Gala' pool, where Juliet's body floated. Retold in a contemporary Eastern European criminal underworld, this production included Balkan choirs and Gypsy music by Macedonian composer Nikola Kodjabashia.

As Gregory explained, "For *Romeo and Juliet*, we were very reliant on the console operator getting feedback from the stage management team roving with the performance. Much



Paul Gregory with HOME's SSL Live L500 at the Manchester Victorian Baths.

is pre-programmed and level adjustments must get radioed to the operator. In addition to 16 channels of radio mics, there were 16 inputs from a live band, plus a dozen channels of playback from Figure 53's QLab on a Mac that was triggered from the L500."

The *Romeo and Juliet* audio team distributed about 200 inexpensive small speakers and used individual delays to overcome the Baths' long reverb times. "The idea was to pick up actors using head mics and bring it as close to the audience as we could, which we found incredibly easy to do with the SSL desk," explains Gilbert. "This production is also staged in such a manner that one

character never actually appears on stage. So, in addition to the distributed speakers, there were also traditional PA-like speakers for the actor's disembodied voice, as well as larger-scale speakers with subwoofers for the music."

HOME's new complex rejuvenates Manchester's First Street area and will be one of the first theatre venues

in the U.K. to have an L500 permanently installed. Besides its 500-seat main theatre, it also houses a 150-seat flexible studio space, digital production and broadcast facilities, a 5,300 square-foot gallery space, five cinema screens on the third floor, as well as a cafe bar and restaurants.

Solid State Logic  
solidstatellogic.com

## Stadium Nets Community, Dynacord

BIALYSTOK, POLAND—Bialystok City Stadium in Poland recently underwent a renovation that included a new sound system with Community loudspeakers and Dynacord electronics.

The sound system was installed by Zeto S.A., which completed the installation in time for the opening of the modernized venue which took place in July 2014. Zeto's Zbigniew Kaczmarczyk was project manager for the installation.

The main system is housed in the commentary room and linked to four separate amplifier rooms. The audio signal is transmitted over the stadium's network using the Dante protocol and is triple redundant, with two fiber rings and a turbo function ring.

The system uses a Dynacord CMS 2200-3 audio mixer, 16 x 16 DSP equipped digital control matrix and a DPM 8016 digital matrix manager. The audio matrix is 32 x 32 and handled by Dynacord's P 64 digital audio matrix units. By using the IRIS-Net network, each element of the system

is continuously monitored and all operations are controlled via a Dell all-in-one touch-screen PC.

A DPC 8015 microphone, located on the Events Security Commander desk, has full priority over other audio signals, enabling the effective communication of voice messages in the event of non-standard events.

The main loudspeaker system comprises 48 Community R2-474s and three R2-52s. The combination provides the dispersion patterns required for complete coverage of the stadium's 360-degree grandstand. In addition, 38 R.25-94s and 41 R.5-99s provide audio for the stadium's internal promenades and public areas around the building.

A full 20 Dynacord DSA 8410 4-channel amplifiers provide a total of 80 kW to power the Community loudspeaker systems.

Community Professional Loudspeakers  
communitypro.com

Dynacord  
dynacord.com

**NEW BM mkIII SERIES**

### Chosen by Ear

The new BM mkIII series is the next generation of an industry standard that is chosen by ear by world-leading studios time and again.

[www.DynaudioProfessional.com](http://www.DynaudioProfessional.com)

Choose by Ear at your local dealer.

**DYNAUDIO**  
Professional

[www.dynaudioprofessional.com](http://www.dynaudioprofessional.com)





# Pro Tools | S6

## Mixing redefined

Pro Tools | S6 leverages the best of the industry-leading ICON and System 5 families in a revolutionary new modular design. From extensive visual feedback to the integrated touchscreen, Pro Tools | S6 provides a truly immersive experience for the modern sound engineer.

- Customize and scale the surface to match your workflow
- Experience superior ergonomics that feel like a true physical extension of Pro Tools
- Take intelligent control of Pro Tools | Software and other EUCON™-enabled applications
- Tackle the most demanding productions with proven and trusted technology

Get the performance you need to complete projects faster and deliver the best sounding mixes possible.

Take a closer look: [avid.com/S6](http://avid.com/S6)

© 2014 Avid Technology, Inc. All rights reserved. Product features, specifications, system requirements, and availability are subject to change without notice. Avid, the Avid logo, EUCON, and Pro Tools are trademarks or registered trademarks of Avid Technology, Inc. or its subsidiaries in the United States and/or other countries. All other trademarks contained herein are the property of their respective owners.





From The Pro Sound News Blog:

SETTING UP SOUNDGIRLS.ORG

We recently spoke with veteran FOH engineer Michelle Sabolchick Pettinato (Gwen Stefani, Goo Goo Dolls) to learn more about SoundGirls.Org:



"Karrie Keyes, the monitor engineer for Pearl Jam, and I started SoundGirls...basically the organization was built to give women who work in professional audio a place to connect, network and support each other. It's also a place to inspire young women who might be interested in a career in audio or music production and empower them with a road map of how to get in the business and then support them on their journey.

"Our backgrounds are mainly live sound so that's where it started, but it is open to anyone—all forms of audio and music production. One thing we do is to feature a different profile on our website every month on a successful woman in the business—everybody from Kathy Sander, who was the first woman to work at Clair Brothers on tour as one of the first female audio technicians back in the Seventies, to Leslie Ann Jones at Skywalker Sound, who is the Queen of Recording! We did a profile on Jett Galindo, who's a mastering engineer, and we've got a few people who do audio for video games. It covers everything."

For the full post, visit [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015)



sweet tweet links

Pro Sound News brings you pro audio news every weekday on [prosoundnetwork.com](http://prosoundnetwork.com), Twitter feed (@prosoundnews) and Facebook page ([facebook.com/ProSoundNews](https://facebook.com/ProSoundNews))—but we also use social media to share links to interesting mainstream audio news. Here's a few stories we linked to recently on Twitter; get their links at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015).

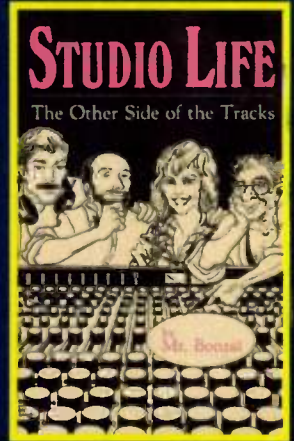
- ▶ Mecos hit disco version of the #StarWars theme paid for building NYC's legendary Power Station Studios
- ▶ According to the @latimes, @drdre is building a 10,000-foot recording studio beneath his new \$40mil mansion.
- ▶ John Vanderslice of SF's Tiny Telephone Studio on why he's opening a third facility, this time in Oakland.



BLOGGINGS

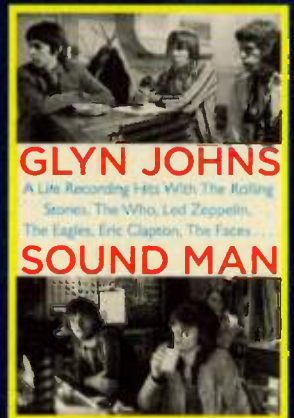
STUDIO LIFE: THE OTHER SIDE OF THE TRACKS

First published in 1984 after being serialized in Mix Magazine, Studio Life: The Other Side of the Tracks has returned as an e-book. Written by industry mainstay (and PSN blogger) Mr. Bonzai, the satire chronicles the colorful history of fictional Ryan Recording and its team—Mr. Bonzai, chief engineer Cart, receptionist and apprentice engineer Layla, and chief tech Smilin' Deaf Eddie—as they struggle for respectability and profits in the music industry. Catch the first chapter on our blog!



10 THINGS WE LEARNED FROM GLYN JOHNS' SOUND MAN

Last month in PSN, we reviewed Sound Man, the new autobiography by Glyn Johns. While it's full of fun stories, however, we discovered it's also packed with excellent career advice and insights from the man who recorded classic cuts by The Beatles, The Rolling Stones, Led Zeppelin, The Who and many, many more.



Find these blog posts at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015)

video vault



B-Side Studio

Remember B-Side Studio, that wacky 1970s sitcom about a struggling Chicago recording studio? No? Well, maybe that's because it wasn't really a hit. Or a TV show. Or made in the Seventies. No, actually it was a series of plays presented in the style of the classic workplace TV comedies from the decade of disco and decay. Performed in 2013 at Chicago's Logan Center for the Arts, they now been turned into an eight-episode series on YouTube. Catch the show at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015)

POWERFUL SOUND

Your Source For Low Prices On The Best Recording Gear

COMPUTER AUDIO INTERFACES • DAW SOFTWARE • MICROPHONES • PREAMPS • SIGNAL PROCESSING • MIXERS

Call a Sales Pro Today!



Call 800-356-5844 or [shop fullcompass.com](http://shop.fullcompass.com)

Leading The Industry For Over 35 Years

Follow Us



Request your FREE 540-page catalog





### Broadway™ acoustic panels

Easy to install Broadway panels like the Apex Accent triangle, Control Cube and Control Column deliver exceptional performance evenly across the audio spectrum.



### Paintables™ acoustic panels

Eliminate the frustration of color matching! Paintables let you apply color to the panels on-site without affecting the acoustic properties.



### Saturna™ hanging baffles

One of several Primacoustic baffles and clouds, designed to hang from the ceiling to bring the reverberant field under control.



### Nimbus™ acoustic cloud panels

Captures ambient reverberation by absorbing sound as it hits the front face while trapping the reflections echoed off the ceiling in behind.



### Broadway™ houndproofing

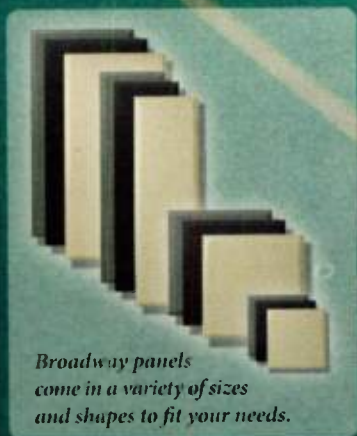
Every kennel can use houndproofing and Broadway panels deliver, absorbing high energy transient barks and howling across the dogio spectrum.



# Don't gamble on your sound...

## Until you fix the acoustics in your room, a louder PA will only make things worse!

Primacoustic has easy to use solutions that will solve 90% of the acoustic challenge with only 25% wall coverage! High performance Broadway™ panels are quick to install, look terrific and deliver great sounding results that you can be proud of. Best of all... it costs a lot less than you'd think.

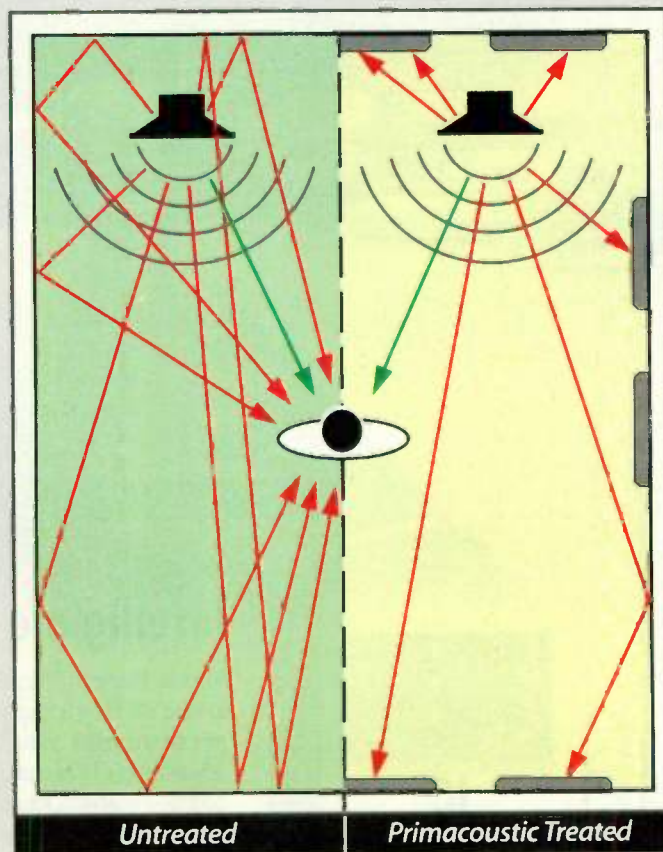


Broadway panels come in a variety of sizes and shapes to fit your needs.

Sound emanating from the loudspeaker competes with echo as it reflects off hard surfaces. These echoes multiply to create a dense reverberant field that seriously disrupts intelligibility, making it difficult to comprehend what is being said. As you increase the sound pressure in the room, you merely amplify the problem. Studios and broadcasters understand the importance of acoustic treatment – they have been using it for years.

Primacoustic Broadway panels are specially formulated to absorb sound energy in the critical vocal range and beyond. They are easy to mount with choice of impalers, look great and are independently tested to meet the most stringent class-A safety requirements. Applying between 15% and 25% coverage will reduce unwanted reflections and significantly improve intelligibility.

With today's proliferation of multi-function rooms, effective communication has never been more important. So before you design that video conferencing solution, add more speakers to a gymnasium or install yet another PA system in your local house of worship, take 6 seconds to clap your hands and listen. If the echo persists, the problem may not be the PA system at all... but the acoustic space.



Untreated

Primacoustic Treated



VIDEO DEMO

Call our experienced team at 1-800-939-1001 ext: 229 and let us show you how easy it is to win with Primacoustic!

Hear the difference with only 15% wall coverage using Broadway panels:

Scan the QR code on left or go to [primacoustic.com/hearthedifference](http://primacoustic.com/hearthedifference)



# PRIMACOUSTIC®

A division of Radial Engineering Ltd. - 1588 Kebet Way, Port Coquitlam BC V3C 5M5

[www.primacoustic.com](http://www.primacoustic.com)



# ≡ CWM Acquires ADAM Audio

BY KELLEIGH WELCH

BERLIN, GERMANY—After months of difficulties with capital funding due to taking on too many projects, Berlin-based ADAM Professional Audio announced its acquisition by German entrepreneurs CWM Holding Com-

pany in mid-December.

Roger Fortier, president, ADAM Audio USA, told Pro Sound News that the previous administration's difficulties with capitalization had affected its ability to produce and deliver products to customers on a timely basis. With the new owners, Fortier noted the company would return to

catering to its customers. "This allows us to move forward again in the United States and deliver products on a timely basis, which is what our customers expect and demand from us," Fortier said.

In a statement, CWM Holding Company said it would invest in ADAM Audio in order to bring pro-

duction back to normal while also investing in new products to help strengthen the company's competitiveness.

"ADAM Audio is known worldwide in the pro audio industry for its superb speakers," commented Sebastian Canzler, a representative of CWM. "Due to the high precision and quality of the products, as well as the large technical expertise of its employees, the company has become very quickly a leading supplier of professional audio monitors. All of this provides a very good basis for further growth, which we strive for together with the existing team."

ADAM Audio was established in Berlin in 1999, with sales offices in the USA, Great Britain and China. Co-founder and head of R&D Klaus Heinz has now left the company.

ADAM Professional Audio  
www.adam-audio.com



## Grundorf Celebrates The Big 3-0

COUNCIL BLUFFS, IA—Music/pro audio case manufacturer Grundorf Corporation, parent company to Grund Audio Design, is celebrating its 30th anniversary. Company principals Susan and Frank Grund started the business in their garage in July, 1984 after deciding to cease touring with their band. "We started out building speaker cabinets and cases for our musician friends," recalls Frank, president. "Initially, the products were sold by word of mouth and, within a few years, we had expanded to nationwide distribution."

"Our loudspeaker systems have evolved from 'me too,' carpet-covered PA cabinets to unique models researched and developed by Frank for specific applications," says Susan, vice president. Frank concluded, "To this day, we are still driven by an entrepreneurial spirit that helps us identify industry trends and to seek out and develop new, innovative products for our industry. At the end of the day, Susan and I genuinely believe we offer a diverse mix of unique products that are recognized for their innovative designs, superior quality, and great value—and that's what it's all about."

Grundorf Corporation  
grundorf.com

## Intelligible Networkable Steerable

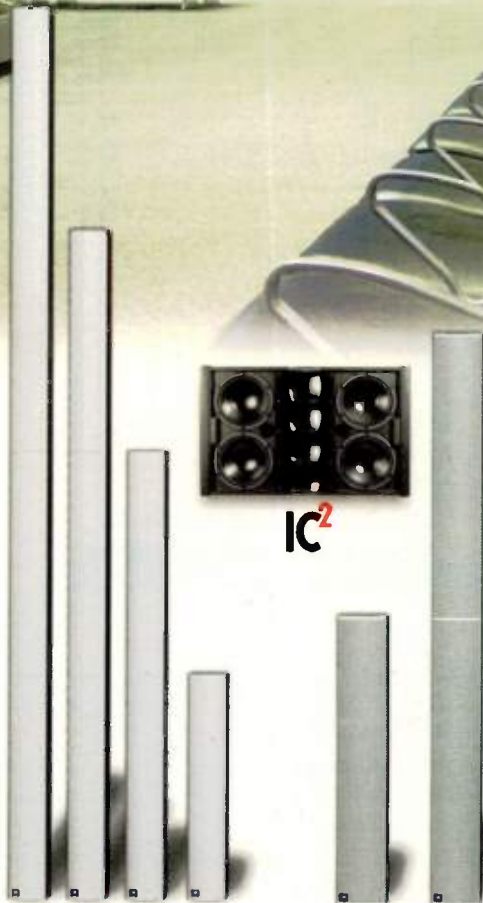
Renkus-Heinz Digitally Steerable Iconyx arrays provide an elegant solution to long standing acoustical problems with slim enclosures that blend into any environment. Individual driver control maximizes the acoustical advantages of this design. The result is unsurpassed vertical pattern control – essential for delivering intelligible speech in reverberant spaces.

The Iconyx beams can be steered up or down while the array remains vertical – and nearly invisible. RHAON (Renkus-Heinz Audio Operations Network) delivers a new level of control and flexibility. A single CAT 5 cable and standard Ethernet hardware is all it takes for multi-channel digital audio distribution, user-controlled DSP, user-defined and selectable presets and comprehensive remote system management and control.

Whatever your space or design Renkus-Heinz is the answer.



IC<sup>2</sup>



ICONYX

IC Live

the **NAMM**  
show<sup>15</sup>

Anaheim, CA USA  
22 - 25 January 2015  
Hall A Booth# 6420  
&  
The Hilton Mix Lounge

**Integrated  
Systems  
Europe**

Amsterdam, NE  
10 - 12, February 2015  
Stop by for a demo  
Hall 7 • Stand # K175



## Neutrik

(continued from page 5)

ket-savvy business approach. “As Neutrik is working in a niche market,” explains Bachmann, “there was no doubt that success could only develop on a worldwide basis. The first consignment was shipped to the USA. This proves that Neutrik has endeavored to take an international approach to its business from the very start.”

Dominated by the USA, the Americas represent a third of Neutrik’s current revenues, with near-equal business slices in Europe and Asia. From the two-man start, the company’s employee count is now close to 1,000. Roughly 250 are based at the Liechtenstein headquarters, with additional personnel working in distribution for subsidiaries in Switzerland, the USA, the UK, France, Germany (two companies), India, Hong Kong, China and Japan. In addition to Liechtenstein, manufacturing is done in the UK and China.

The MI industry and cable assembly sectors are Neutrik’s primary customers, with the Live/Rental, audio OEM and Broadcast sectors following up. “Since all these markets are linked to each other,” says Bachmann, a clear differentiation of business percentages by sector is difficult. He does note that “the vertical markets are different in each area—while cable assemblers, OEM and contractors are our key customers in the USA, OEM plays an important role for Neutrik in Asia.”

Bachmann cites “innovation, continuity and quality” as the keys to Neutrik’s success. “When it comes to innovation, it is not only the product to be mentioned but also other aspects are very important from an innovative point of view, such as engineering, organization, logistics, etc. In addition, we use one software application worldwide—SAP—which helps us to track customer information and to detect trends. Continuity plays a decisive role with respect to our customer base, but is not less important on the supplier side and for our motivated and loyal staff. Quality is to be seen as elementary in our daily business: Whatever Neutrik is doing, quality has first priority.”

Customer-centric innovation is also seen as critical to Neutrik’s continued health, coupled with being “a reliable partner for our employees,” says Bachmann, who suggests that the company’s base locale is an additional positive force, economically, socially and aesthetically.

“Neutrik is proud to emphasize that several Neutrik products are recognized as ‘standards’ in the audio industry.”

Werner Bachmann, Neutrik CEO

“We are still manufacturing the majority of our products in Liechtenstein, a high-wage country, due to the fact that we have excellent business conditions in Liechtenstein. In

addition, we bear social responsibility in the sense of offering jobs for the people living in this area. Last, but not least, we are absolutely convinced that Neutrik’s highly moti-

vated engineers and staff in general are supported to have innovative ideas, to create best-quality products, and to perform at a high level in perfect surroundings like the one Liechtenstein is able to offer in the midst of the Alps.”

There is 40 years of success and a billion connectors out there to offer ample evidence of the validity of Neutrik’s business model and vision.

Neutrik  
neutrik.com

**DPA**  
MICROPHONES

d:dicate™

FROM ACOUSTIC GUITAR TO DRUM OVERHEADS, GRAND PIANO AND GUITAR AMPS

# DPA 2011C EXCELS

The d:dicate™ 2011C exhibits an open natural sound, with an imperceptible noise floor and an impressive 146 dB of SPL handling capability, making it a perfect choice for a wide variety of both live and recording applications.

WRH

www.dpamicrophones.com



## Everybody Likes Pie

BY STEVE HARVEY

GLEN COVE, NY—Pie Studios, located in Glen Cove on the North Shore of Long Island—the famed Gold Coast of F. Scott Fitzgerald’s day—is celebrating 25 years in business. During the heyday of big-budget recording, some major artists recorded at Pie, but these days the facility is semi-private.

“The studio has really become a think-tank, a sort of laboratory, for the projects we’re doing,” explains owner Perry A. Margouleff, who has been in the business for rather more than a quarter-century. The facility is certainly open to customers, “But I don’t have a shingle hanging out anymore looking to book studio time in the conventional sense. It’s really repeat customers, and people who are part of the family we work with. That’s the only thing that makes sense; otherwise you’re beating your head against the wall.”

That family includes producers Rick Chertoff and William Wittman, known for their work with Joan Osborne and others. “Bill just mixed a Broadway play here for Cyndi Lauper, *Kinky Boots*,” reports Margouleff.



A key feature of Pie Studios is the control room’s eight bays of outboard gear, seen here behind owner Perry Margouleff (center) and assistant engineer Wesley Hovanec.

“The people who come to me are not people calling to find out how much it costs to book time,” he continues. “They’re people who are calling because they want to mix and they know I’ve got a Neve 8078 with GML automation and Studer 800s in good working order and they can’t just go anywhere to do it.”

Margouleff already had those ma-

major pieces of equipment from an ill-fated earlier studio venture with a partner in Connecticut. “We discovered rapidly that all the neighbors in this very suburban area would not tolerate people making noise at 1:00 in the morning,” he ruefully recalls.

He decided to go it alone, against the recommendations of his uncle Bob, whom, as a young person, he

would watch working with the likes of Stevie Wonder. “Bob said, ‘It’s the most difficult business.’ But I said, ‘Oh Bob, I’m different.’”

Margouleff found an existing studio in Glen Cove, necessitating little up-front expense. The control room, measuring 26 feet by 20 feet, needed a little work, he says, but the 35-foot

*(continued on page 27)*

## Making The Old Like New Again

BY STEVE HARVEY

LOS ANGELES, CA—With big tracking rooms back in fashion and analog recording enjoying something of a resurgence, the market has apparently never been better for restorers of vintage mixing consoles.

“We have been selling classic desks going on 22 years now,” says Mike Nehra, co-owner of Vintage King Audio. “They have incrementally increased in value and have outpaced the stock market for many of these 22 years.”

For example, offers Nehra, “Back in 1993, vintage Neve 1073 modules sold for \$700. Now, in 2014, they sell for \$7,500 when properly serviced and with a warranty. Figure out the ROI.”

As for the most sought-after brands and models, says Nehra, “Pretty much any vintage class A or class AB: Seventies-era Neve 80 series or Broadcast variants—BCM10, 8014, 8028, 8058, 8068, 8078; any

vintage API or later Legacy models; any Helios models; SSL G and G+ models; Trident A range and 80 series models; and Quad 8.”

Endless Analog’s CLASP system helped introduce younger engineers to the joys of recording to tape, says

Paul Cox, a Los Angeles-based service and commissioning engineer at SSL for many years before founding Paul J. Cox Studio Systems, specializing in facility technical design and installation. “It made people unwrap the Studers, to be used with either a used [SSL] J or K [series] or a vintage Neve.”

While large SSL desks of more recent vintage are coveted, they can be, well, too large. “A majority of

the Js and Ks were 72, 80, 96 inputs. Eighty is too big for most people, because they don’t want to spend \$3,500 every month on power and air conditioning,” says Cox, noting that a 48-input chassis is more preferable. Consequently, SSL modules

may be found for \$2,000, while the price differential between large and small used consoles has become negligible.

Cox’s clients obviously prefer to find a vintage desk in the best-possible condition, so his refurbishments might be as simple as re-capping and some switch replacements. Substituting Atomic Instrument power supplies for the original units may also be advisable, he adds.

“My career is more like that of a museum curator than active present-day technician.”

Paul Cox

Beyond that, a variety of modifications can realign the desk for modern workflows, including per-channel 48 VDC phantom power and direct outputs, which Cox added on Trent Reznor’s Neve BCM10, as well as enabling tape returns to input channels, which he also added to the rare Neve, purchased through Vintage King, for Michael Marquart’s Windmark facility. Plus, he says, “In this day and age, you’ve got four iPods, a Mac out and a secondary Mac out, a DVD, cable TV. So in a studio situation, the monitoring side of it definitely warrants modification.”

But Cox is careful to make age-appropriate mods, exactly matching legending and the patina of the paint, and using waxed lacing cord to match the original wiring looms. “My career is more like that of a museum curator than active, present-day technician,” he laughs.

To any restoration, Bruce Millett, CEO/president of Desk Doctor in Burbank, CA, specializing in used SSLs, sometimes adds a chassis modification. “We’ve had

*(continued on page 30)*



# MAKE GREAT MUSIC

KRK Systems is one of the world's most respected manufacturers of Studio Monitors. In our California state of the art design facility, KRK engineers create products that deliver a natural and balanced spectral response with low distortion, tight bass and superior imaging. With KRK monitors, subwoofers and headphones, recording engineers and artists hear every nuance of the audio being reproduced regardless of musical style, genre, or particular mixing needs. Please take a closer look at KRK's line, used by many Gold, Platinum or Grammy award winning producers for tooling and crafting their great music.



VXT-Series



ROKIT-Series



KNS-Series



Subwoofers

*KRK monitors are legendary for their honest voicing, accuracy and transparency. Looking for a studio reference monitor that you can trust your music to? Isn't it time you listened to a legend?*



KRK Systems is a member of the Gibson Family of Brands.  
©2015 Gibson Brands, Inc. All rights reserved.

[www.krksys.com](http://www.krksys.com)





## Just What The Doctor Ordered

BY STROTHER BULLINS

Recording engineer Daniel Charles—owner/proprietor of Houston, TX's Sonic Pharmacy recording studio—was honed on punk rock, thus well prepared for a future working with DIY and indie-minded recording artists. Matter of fact, there's an overall punk aesthetic to Sonic Pharmacy's recording business, which began in 2007 as a means to "fix bands' self-recorded tracks," explains Charles.

"I started with fixing tracks and eventually went with a 'front-end' approach to give bands a great start," he continues. "I'm also a little cheaper than most [competing studios] as I do respect the fact that you have to keep your nose to the ground and budgets matter when releasing your own music. I like to pick and choose whom I work with, too. It's not the most financially beneficial business model, but it's what I like to do."

The biggest challenge of recording indie artists today is that they often expect too much, notes Charles. "They want it to sound like a commercial recording, but there's only so much you can do when the front end isn't as good as you hoped. Some say, 'Our drums don't sound like their drums,' yet they're playing on a \$300 kit and comparing it to a \$5,000 kit. It's tough to compete like that. So what we did was buy that \$5,000 drum kit—come here and you'll get the big drum sound. As a struggling artist, you may not have access to that kind of gear, but here, you can get it."

Charles notes that Sonic Pharmacy provides a variety of instrument amplifiers and even guitars from time to time. "I think it relieves stress in that you can focus on getting the sound you want," he explains. "The artists will come in with their amps, I'll check them out, then offer to augment it with one of our amps, too—something completely different but complimentary. When combined, it makes something special. Having everything you need, even instrument-



Daniel Charles, seated at the one-of-a-kind 32-channel Flickinger 32NB analog mixing console at the heart of Sonic Pharmacy in Houston, TX.

wise, is essential to making a quality and artistic recording."

The acoustics of Sonic Pharmacy are largely due to its 20-foot by 25-foot main tracking room featuring cork flooring and ceiling surfaces with absorptive material around the walls to minimize reflections. "I really like how guitar amps sound on cork floors," notes Charles. "Though certain aspects of the studio aren't ideal, it's mine, so I've had lots of time to learn, for example, exactly where the snare sounds its best."

Sonic Pharmacy's centerpiece is its truly unique Flickinger 32NB analog mixing console—the only 32-channel (and thus largest) Flickinger ever made. Its creator, Daniel Flickinger, was a designer/builder of late '60s/early '70s premium recording consoles and, most notably, an early innovator of the "sweepable" parametric equalizer and the very first inline console designs. Indie production icon Steve Albini has even been quoted as saying Flickinger consoles "are the best sounding mixing desks ever made."

"Each Flickinger has its own story," chuckles Charles, who gained the mixer via the services of Pepper's Pro Shop, a Nashville-based new, used and vintage gear seller/broker. "They say Flickingers are cursed, but mine is the lucky one. My 32NB's schematics were started in 1971. Meanwhile, Daniel Flickinger himself was picked up by the Feds in 1972, which took him to jail, so the console wasn't finished. As everything in the shop was being seized, someone working for Daniel called United Sound Systems in Detroit, telling them, 'Here's a great deal on a Flickinger...but it's not done yet. We'll have to build it out at your place.' So Daniel and his as-

sociates smuggled out the 32NB and finished constructing it at United where it stayed until the mid '80s."

Incorporating some features that didn't become popular for nearly a decade after its build—for one, key elements of its EQ design—add to the Flickinger allure. "When you look at it and look at the design, you'll realize that Daniel Flickinger was a mad genius in 1972," Charles gushes. "The knobs are all backwards, by the way; you 'turn it up' from right to left. Things he discovered by tinkering around were boldly incorporated into the design. Sonically, it has the silky high-end of a Neve, an unmatched bottom end—I've heard nothing else like it—and the punchiness of an API. I've read that some say these consoles are muddy and murky; that's just not the case, at least not with this one. It's wide open and there's so much you can do with it, especially thanks to its EQs. Daniel's EQ design, though it's probably not the best you can get anymore, could be the most functional. For that reason, it's hard to make a bad-sounding record with it."

However, its inherent uniqueness isn't why Charles bought the Flickinger. "I bought it because it came out of United Sound," he admits. "I was born in the Detroit area and absorbed that incredible Motown sound. When I found out that this console was available, I jumped at the chance to get it."

In building out Sonic Pharmacy's impressive outboard gear list, Charles works to find pieces with unmistakable and striking character. "I tend to collect the 'one-trick ponies' of the processing world, not the workhorses or tools that work on a wide range of applications," he explains. "I'd rather consider a piece of gear for potential use on, say, every third record; when I need it, it's there and it lends a notable difference. I also tend to buy tube gear, too; transformers with tubes lend that characteristic everyone seems to agree is pleasing to the ear."

Buying, trying and selling gear has been a proven method in building his studio's sound, tells Charles. "I've gone through a lot of gear to get to where I am now. I'll usually buy a piece of gear, use it for a year, and if I haven't really used it much, I'll sell it and get something else."

Select gear from the Sonic Pharmacy equipment list includes Tree Audio's The Roots console (primarily for its preamps) and Ingram Engineering MP685 preamps; EQs by Kush Audio, Inward Connections, Mercury Audio and Tube-Tech; compressor/limiters by Acme Audio, Dangerous Music, EMI, Gates, Purple Audio, RCA, Retro Instruments and Universal Audio, plus the "Faircharles 670," a Fairchild clone hand-built by Charles himself to original spec with NOS tubes and original transformers. Charles also relies on JBL 3 series studio monitors (a LSR308 pair), SSL Alpha Link converters modded by Black Lion Audio, and a bevy of AKG, AEA, Blue, Cathedral Pipes, Electro-Voice, Royer and Shure microphones.

Charles is particularly enthusiastic about his latest discovery, Miktek microphones, which he says "stack up well against the best mics made. Compression-wise, I especially like the Retro Instruments 176 and my two Gates Sta-Levels—I'll use those every time, on every single record. I also like my four LA-3As. We tinker and listen, always shoot-out gear and forget the rules. That's why my mixing sessions last longer than most, I guess, but we're trying to push the limits and come up with something new every time."

Sonic Pharmacy  
sonicpharmacy.com

STUDIO: SONIC PHARMACY OWNER: DANIEL CHARLES LOCATION: HOUSTON, TX



There's more ▶ Give a listen to Sonic Pharmacy's Flickinger console via the Ghost Rocket Band's "We Were Invincible" at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015).



## Pie Studios

(continued from page 24)

by 28-foot tracking space with 18-foot ceiling and two iso booths offered a nicely balanced, live but controlled environment.

The facility is not short of outboard equipment, microphones or backline choices. "The period of '87 through '91 was the demise of the great New York studios, and I was fortunate to be at the auctions for the Record Plant, Media Sound, A&R, RCA, CBS, Tin Pan Alley, Cherry Lane, Sound One and other studios as they were going out of business, buying the gear. So by the time I put the room online, I didn't have to go out and buy anything."

The eight-bay credenza houses an impressive collection of devices from Altec, AMS, API, Dynacord, Eventide, Fairchild, Flickinger, GML, Lexicon, MXR, Pultec, Telefunken, Trident, UA and more. Out on the floor, clients have access to a 1931 Steinway Model B grand piano, Hammond B-3 with Leslie 122, and stacks of amplification. The mic locker holds numerous gems from AKG, Beyerdynamic, EV, Gefell, Neumann, RCA, Schoeps, Sennheiser, Shure and STC.

"My attitude was, you've piled a bunch of gear into the room, now the room acoustics really changed, and if the people are paying for the room, they should just be able to use whatever they want to use. So I had this insane collection of outboard gear and there was no extra rental cost."

Although Pie is located less than an hour outside Manhattan, that discouraged potential local clients. Instead, he says, "Cheap Trick would come from Rockford, Illinois, or the Rolling Stones would come from whatever planet. They were traveling from wherever they were traveling from, so it was more about the space."

These days, Margouleff focuses on production projects and his label, Pie Records. "I have one artist [Thom Chacon] on the label at the moment, a young singer/songwriter guy in the vein of John Prine. We've made a couple of records of him with Bob Dylan's band."

He adds, "I've been doing a lot of work with Paul Rodgers [Free, Bad Company and other bands]. We made a record in Memphis at Willie Mitchell's Royal Studios and mixed it at my place. We brought a lot of microphones and gear with us, so a part

"Cheap Trick would come from Rockford, Illinois, or the Rolling Stones would come from whatever planet. They were traveling from wherever they were traveling from, so it was more about the space."

*Perry A. Margouleff*

of Pie went down there." Margouleff plays guitar on the record and has also been playing live with Rodgers.

Looking back, building a studio and a business did turn out to be as difficult as Uncle Bob predicted. "But I

did it and I survived and we created something special and unique, and serviced a lot of people who appreciated it while the studio thing was still a popular commercial venture. It was a lot of work, but it gave me the opportunity to

work with a lot of really brilliant people, and to learn a lot, and to develop and hone my craft. And that's the more important aspect of it for me."

**Pie Studios**  
www.piestudios.com



TouchMix™-16  
Compact Digital Mixer

K10  
Active Loudspeaker

- "Big mixer" features and specs in a compact and portable form
- Wizards, info and preset libraries make getting great results fast and easy
- Provides optimal settings for K, KW and KLA Series loudspeakers
- Padded carrying case and USB Wi-Fi adapter included. No additional network hardware required for remote control.
- The #1-selling powered loudspeaker in the U.S. four years in a row\*
- Legendary QSC quality, performance and reliability
- Six-year warranty with product registration

TouchMix digital mixers and K Series loudspeakers. Each remarkable products in their own right. Together, the combination of performance, versatility, ease of use and of course, genuine QSC reliability, is nothing short of amazing. Want to learn more? Go to QSC.com.



TouchMix™ Series



K Series

# QSC™

qsc.com

THERE'S MORE ▶ Read more of Margouleff's adventures in the music business, past and present.





**ARTIST:** BRADY RYMER AND THE LITTLE BAND THAT COULD

**ALBUM:** JUST SAY HI!

**LABEL:** BUMBLIN' BEE RECORDS

**PERSONNEL:**

**Produced by:** Dan Meyers, Brady Rymer

**Engineered by:** Ken Rich, Jake Lummus, Dan Meyers

**Studios:** Grand Street Recording (Brooklyn, NY); Dirt Floor (Budd Lake, NJ)

**Mastered by:** G&J Audio

**EQUIPMENT NOTES:** Avid Pro Tools HD; API 312, BAE 1023, 1084, Neve 1272, 1066 mic pres; Neumann U 47, Shure SM7 mics; Lynx Aurora converter; ATC SCM25 studio monitors



**ARTIST:** THE BLIND SHAKE

**ALBUM:** BREAKFAST OF FAILURES

**LABEL:** GONER RECORDS

**PERSONNEL:**

**Produced by:** Blind Shake, Chris Woodhouse

**Engineered by:** Chris Woodhouse

**Studios:** Dock Studios (Sacramento, CA)

**Mastered by:** Jason Ward (Chicago Mastering Service)

**EQUIPMENT NOTES:** Trident Series 65 console; Studer A80 recorder; Yamaha NS-10 studio monitors

MXP mixer; Avid Pro Tools; Logic Pro 9; Neve Sidecar, API, Great River, SSL mic pres; Digi 192 converter; Apogee Big Ben; Dynaudio BM15a studio monitors



**ARTIST:** LAYNE

**ALBUM:** WARRIOR

**LABEL:** INDEPENDENT

**PERSONNEL:**

**Produced by:** Devon Corey, Layne Putnam

**Engineered by:** Devon Corey

**Assistant Engineer:** Jacob Bautista

**Studios:** Madden Brothers Studios (Los Angeles, CA); Kyle Black Studio (North Hollywood, CA)

**Mastered by:** Lee Putnam

**EQUIPMENT NOTES:** Avid Pro Tools; Sony C800 synthesizer; Adam S3A-H, Yamaha NS-10 studio monitors



**ARTIST:** HERMAGESTY

**ALBUM:** MY BODY, YOUR MIND

**LABEL:** BITTERSWEET RECORDS

**PERSONNEL:**

**Produced by:** Nic Hard

**Engineered by:** Nic Hard, Diko Shoturma

**Assistant Engineer:**

Alexandria Wood

**Studios:** Atlantic Sound Studios (Brooklyn, NY); Kingsize Soundlabs (Los Angeles, CA); Limebeat (New York, NY)

**Mastered by:** Greg Calbi (Sterling Sound)

**EQUIPMENT NOTES:** Trident 80 Console; Avid Pro Tools 10; Neve 1073, Vintech X73i mic pres; Empirical Labs Distressor; Universal Audio 1176, Purple MC77 limiters; Urie LA-3A; Charter Oak E700, Neumann M582, TLM 49, Shure SM57, Royer R-121, Sennheiser 421 microphones; Yamaha NS-10, Adam A7X studio monitors



**ARTIST:** OLIVER THE KID

**ALBUM:** FREAK

**LABEL:** N/A

**PERSONNEL:**

**Produced by:** Oliver the Kid, Danny Score

**Engineered by:** Daniel Braunstein

**Studios:** Braunstein Studios (Woodland Hills, CA)

**Mastered by:** Daniel Braunstein

**EQUIPMENT NOTES:** Apple Logic; Avid Pro Tools



**ARTIST:** GRACE SINGS SLUDGE

**ALBUM:** RED LIGHT MUSEUM

**LABEL:** SELF RELEASED

**PERSONNEL:**

**Produced by:** Grace Cooper

**Engineered by:** Grace Cooper

**Studios:** Grace Cooper Home Studio (Oakland, CA)

**Mastered by:** Grace Cooper

**EQUIPMENT NOTES:** Fostex MR8-mkII recorder; Apple Garageband



**ARTIST:** LIFE LEONE

**ALBUM:** COMES CRASHING IN

**LABEL:** WILD FARM RECORDS

**PERSONNEL:**

**Produced by:** Jeff Halbert

**Engineered by:** Jeff Halbert

**Studios:** Dave's Room (North Hollywood, CA); Red Star (Los Angeles, CA)

**Mastered by:** Jeff Lipton

**EQUIPMENT NOTES:** Sony



**ARTIST:** JEZE DIOR

**ALBUM:** THE FUNERAL

**LABEL:** STEEL WOOL RECORDS

**PERSONNEL:**

**Produced by:** Danny Score

**Engineered by:** Daniel Braunstein

**Studios:** dB Music Studios (Woodland Hills, CA)

**Mastered by:** Daniel Braunstein

**EQUIPMENT NOTES:**

Avid Pro Tools 10, 11; API 500V Lunchbox, 512, Black Lion Auteur preamps; dbx 160A compressor; Yamaha NS-10M, JBL LSR4328P, Neumann KH-120 studio monitors



**ARTIST:** ANGELA MOYRA

**ALBUM:** FICKLE ISLAND

**LABEL:** ZIP RECORDS

**PERSONNEL:**

**Produced by:** Reyn Ouwehand

**Engineered by:** Joris Wolff, Reyn Ouwehand

**Studios:** Studio The Church (The Netherlands)

**Mastered by:** Darius van Helfteren (Amsterdam Mastering, The Netherlands)

**EQUIPMENT NOTES:** Avid Pro Tools HD; Grimm CC1 Master Clock; Grimm LS-1 studio monitors



**ARTIST:** FIELD REPORT

**ALBUM:** MARIGOLDEN

**LABEL:** PARTISAN RECORDS

**PERSONNEL:**

**Produced by:** Robbie Lackritz

**Engineered by:** Robbie Lackritz

**Assistant Engineer:** Brendan McGuire

**Studios:** Unicorn Ranch (Ontario, Canada); The Escarpment (Ontario, Canada)

**Mastered by:** Philip Shaw Bova

**EQUIPMENT NOTES:** Neve 5432 console; Avid Pro Tools; Neve 80 Series Sidecar

## Right Coast Relies on Lexicon

COLUMBIA, PA—Owned by FOH engineer Dave Natale (Rolling Stones, Lionel Richie), Columbia, PA-based Right Coast Recording, with clients including Billy Joel, the Dixie Chicks and Yes, features Lexicon's (harman.com) PCM Native Reverb Plug-In Bundle, two 224 digital reverbs, an MX200 effects processor and a classic PCM 70 digital effects processor.

## Rodney Jerkins Goes Barefoot

LOS ANGELES, CA—Producer Rodney Jerkins—whose mix of Sam Smith's "Stay With Me" is nominated for Record of the Year and Song of the Year Grammy Awards—has adopted Barefoot Sound's (barefootsound.com) flagship monitors, outfitting his studio in the Capitol Records Tower and in his private home studio with the company's MiniMain12 speakers.

## SSL Goes Downtown, Twice

JOHANNESBURG, S. AFRICA—Downtown Studios, built in Johannesburg as RPM Studios in 1978, recently underwent a major upgrade, installing a 72-channel SSL (solidstatelogs.com) Duality in Studio 1 and an SSL AWS hybrid console/controller in Studio 3. Past clients include U2, Manfred Mann and Mick Hucknall.

## Garay Lends Ear To ATC

TOPANGA CANYON, CA—In his recording facility, The Barn Studio, Grammy Award-winning producer/engineer Val Garay recently augmented his Breston 48ST-powered vintage Tannoy SGN10Bs mains, alongside heavily-customized Yamaha NS-10 nearfields, with ATC SCM20PSL Pro compact, passive two-way studio monitors (transaudiopro.jp.com/atc) that are paired with a Phase Linear 700B amp.





## The Compatibility Game

The “big features” that live within a DAW—digital audio, MIDI, automation, video integration, etc.—are already in place, but once you go outside the DAW, matters become less certain. Compatibility is crucial because no product supports everything, so we have to be really careful to set priorities and make buying choices that accommodate those priorities.

There are two main compatibility issues, starting with platforms. When Microsoft and Apple change their operating system, the ripple effect not only impacts DAWs, but also may affect the drivers and peripherals DAWs need to connect with video and audio. After an OS update, some users are essentially dead in the water until new drivers arrive for their audio interfaces. Nor are optimum hardware choices always obvious. A “high-performance” video card may be gaming-centric, so a driver “update” that delivers better game performance may do so at the expense of audio streaming.

Developers have also complained about Apple modifying

For example, VST3 is a comprehensive specification that, like MIDI, does not require a manufacturer to implement all elements. As a result, one DAW may be able to take advantage of certain features that other DAWs do not, but this also depends on whether the plug-in can support a particular feature. And what about video format compatibility, especially when Windows doesn’t have a 64-bit video or audio codec for QuickTime?

ARA (Audio Random Access) is another protocol some DAWs support and some don’t. Originated by Celemony working in conjunction with PreSonus to support Melodyne pitch correction, it has since been adopted by Cakewalk and has other potential applications. But this brings up another point about compatibility: If a program already offers its own pitch correction internal to the DAW, should compatibility with a different pitch correction plug-in be a priority if it requires an underlying change in the DAW itself?

Or take controllers. Should a DAW support the EUCON protocol for Ethernet connection of

“Compatibility is crucial because no product supports everything, so we have to be really careful to set priorities and make buying choices that accommodate those priorities.”

hardware specs, like changing the PCIe bus and thereby rendering some previously PCIe-compliant products obsolete. Or consider Microsoft’s “audio driver model *du jour*” approach—no wonder companies stick with ASIO. Another problem is the ever-changing mobile world. Many programs require tweaks for iOS updates, but the situation is even more chaotic with Android’s diverse operating systems and standards.

Companies can’t do much about these issues except grin and bear it. But with limited resources, creating new features or debugging old ones often cedes priority to maintaining compatibility.

The second compatibility issue exists within the DAW: Which of the many protocols will it support?

control surfaces? How extensively should it support the aging Mackie Control protocol? Is it important to support touch, given its current Windows-centric orientation?

There are three main ways companies determine which compatibilities are important. First is whether compatibility will fill a product’s “hole.” Perhaps one reason why PreSonus and Cakewalk were quick to embrace ARA is because Studio One didn’t have internal pitch correction, and Sonar’s V-Vocal was getting pretty long in the tooth. They needed modern pitch correction to remain competitive, so ARA provided a solution.

Second is whether the compatibility will be perceived as a benefit

(continued on page 52)

## Software Aids In Power Use Of Hardware

**On his Continuing Adventures In Software, Rich Tozzoli finds the soft path helps when he later treads the hard road.**

Recently, when I found myself working in a “traditional” studio (amazing that I even have to say that), I noticed how much better I knew all of the outboard gear. The funny thing is, when thinking

stand how to use the Warmth feature to pull down some of the hi-hat that inevitably gets grabbed when pushing the snare.

For that matter, I also turn to the Waves Abbey Road TG12345 and use the Presence knob to pull down some of the 10 kHz after the EL7. Now, I will certainly tell you I never sat at that console at Abbey Road and

“I’m not actually saying one or the other sounds better; software can sound different from its hardware inspiration, even as the hardware can vary sonically from unit to unit.”

about it, I realized that’s because I use so many of the software versions. That was quite a revelation!

For example, I use the Universal Audio’s Empirical Labs EL7 Fatso Jr. plug-in on every session. It’s my go-to tool to make snare drums jump. But when I worked in studios, I wouldn’t turn to it that much—simply because I didn’t know it as well as I do now. I’ve spent so much time sitting with it and tweaking how the Input and Output relate to each other, as well as the Spank mode of compression, that I know it intimately. I also under-

used this channel strip. But if I did, I would have a very good idea of how to use it.

Another piece of gear I now use every session is some form of 1176 compression. Again, when working in studios, I would use it, but not nearly as well as I do now, having spent countless hours with it onscreen in front of me. There are some really fine adjustments that can be made with how the Input, Output and Release all relate to each other. Since I turn to it for room microphones, I

(continued on page 57)

**Harrison** THE BEST IN BOTH WORLDS

**MPC5** DIGITAL FILM CONSOLE  
 “Harrison made the tool that we all expected for many a future.”  
 Keith Mullen, Creative Sound

**950MX** ANALOG CONSOLE  
 “No matter what the sound source was, the results were always punchy and pleasing with lots of headroom.”  
 Randy Price, Pro Audio Review

**LINEAGE** 3 CHANNEL PREAMP  
 “Each preamp section has its own character while still managing to share a similar signature that you could call the Harrison sound of solid, clean and forward.”  
 Paul York, Recording Magazine

**3320** 3 CHANNEL FILTER UNIT  
 “The real killer of the Strip feature...lightening and muting things up beautifully.”  
 George Stoney, Recording Magazine

**SHIPPING 3000** 3 CHANNEL STRIP

Learn more at [HarrisonConsoles.com](http://HarrisonConsoles.com)



## Refurbished Consoles

(continued from page 24)

a few consoles where we've done a custom center space—a 26-inch bucket where the DAW section can sit," he reports.

"I advise people not to modify the actual main electronics too much.

Why would you buy an SSL then try to make it sound like a Neve, or vice-versa? If it's for your own personal space, of course, do whatever you like, and we'll be happy to accommodate it. But if you are in a commercial space, it becomes even more important to keep it fairly true to what it was," Millett advises.

As for desirability, he says, used Neve V and VR consoles are generally not as attractive. "They're not as

maintainable, which is why the value has plummeted." A 72-channel VR with Flying Faders from a renowned L.A. facility sold for just \$20,000 a few years ago, he reports.

Millett, who says he has sold 17 used consoles this year, including a Helios and some small Neve desks, believes the market is picking up: "There seems to have been a fairly good shift in people's wishes to get back into a proper studio environ-

ment, as opposed to doing everything in the box."

Spotting an opportunity in this shifting market, Millett even purchased a console manufacturer and relocated it to L.A. this year. "The console is called the Custom Series 75. It's based on a vintage Neve, made under license from Neve. The whole channel path is 1081 input, 1081 four-band EQ, 1073 outputs, all class A."

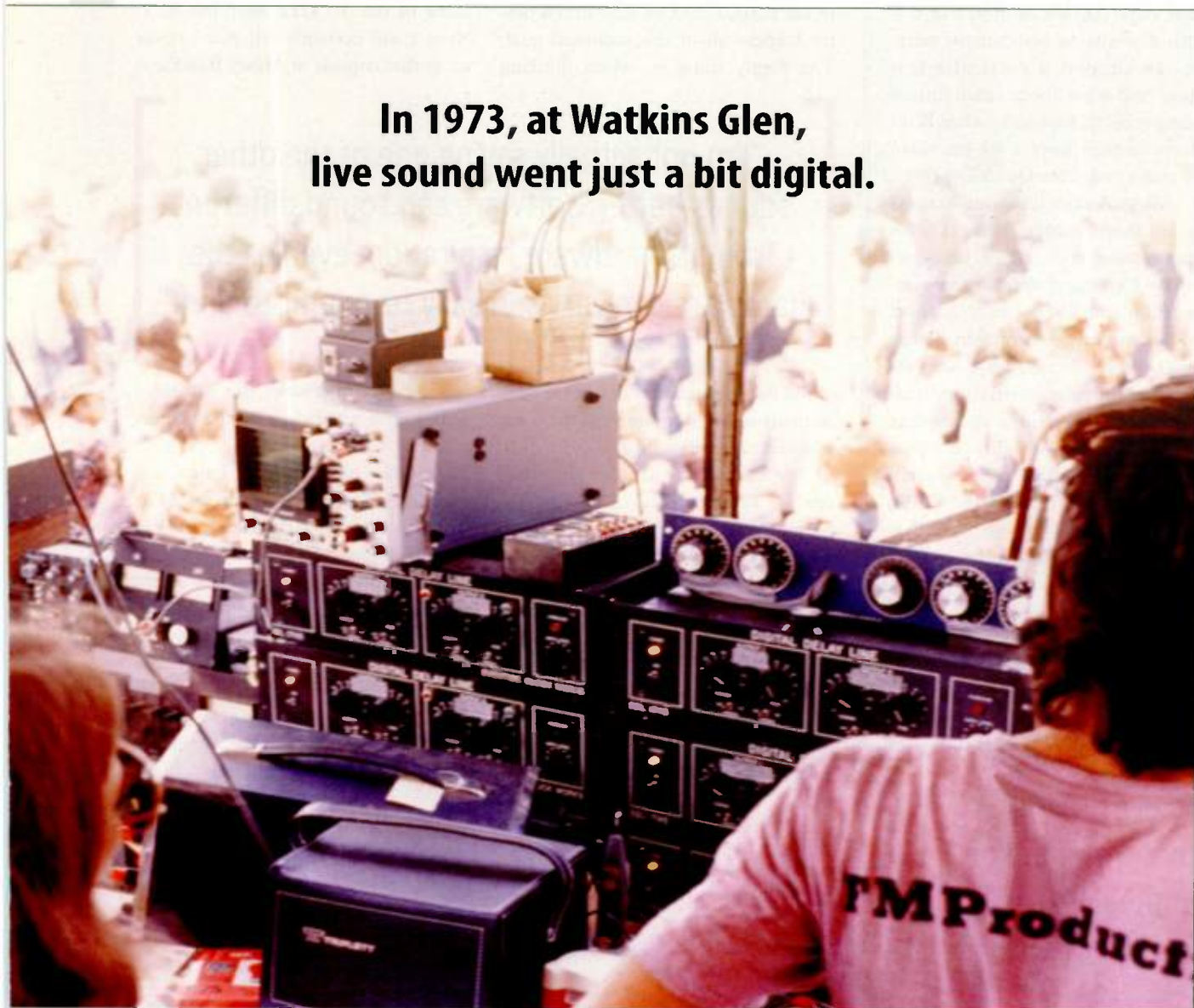
Nehra notes that a Neve console loaded with desirable 1073, 1084, 1081, 31102 or 31105 modules—which "are at the highest prices we have ever experienced," he says—are in very high demand and command a premium, especially when properly serviced to the standards that Vintage King offers. "The investment in the servicing maximizes the value of the desk, making it reliable and once again a pleasure to work on for years to come," he says.

Desk Doctor  
deskdoctor.com

Paul J. Cox Studio Systems  
www.pauljcox.com

Vintage King Audio  
vintageking.com

### In 1973, at Watkins Glen, live sound went just a bit digital.



"In the beginning, audio was analog. And, almost anything was possible."

Everything but delay. And so the Digital Delay Line (DDL) was born. DDLs were simple and limited to just delay. Today, forty one years after a stack of Eventide DDLs delayed the audio feeds to the speaker towers at Watkins Glen, Eventide introduces the **DDL-500**. Designed to be 'as analog as possible', the **DDL-500** will make your 500 series lunch box "just a bit digital."

## DDL-500

### Digital: Just Delay

24-bit

10 sec @ 192 kHz

160 sec @ 16 kHz

### Analog: Everything Else

Mix

Input Kill

Feedback

Soft Saturation

Low Pass Filter

Send/Return

# Eventide®

Eventide is a registered trademark. © 2014 Eventide, Inc.



<http://bit.ly/DDL500>

## Grammy Noms

(continued from page 16)

neers; Nathaniel Reichman, mastering engineer

■ *Duilleux: Symphony No. 1; Tout Un Monde Lointain; The Shadows Of Time* (Ludovic Morlot & Seattle Symphony)

Dmitriy Lipay, engineer, mastering engineer

■ *Riccardo Muti Conducts Mason Bates & Anna Clyne* (Riccardo Muti & Chicago Symphony Orchestra)

David Frost & Christopher Willis, engineers; Tim Martyn, mastering engineer

■ *Vaughan Williams: Dona Nobis Pacem; Symphony No. 4; The Lark Ascending* (Robert Spano, Norman Mackenzie, Atlanta Symphony Orchestra & Chorus)

Michael Bishop, engineer, mastering engineer

### PRODUCER OF THE YEAR, CLASSICAL

■ Morten Lindberg; Dmitriy Lipay; Elaine Martone; Judith Sherman; David Starobin

The Recording Academy  
www.grammy.com





briefs

### DPA Captures CA Sound

SACRAMENTO, CA—Production sound mixer Timothy O'Malley chose to employ DPA's (dpamicrophones.com) d:mension 5100 mobile surround microphone for *Becoming California*, a two-hour documentary, narrated by actress Jane Fonda with an original score led by Grammy Award-winning musician Pat Metheny, sponsored by The California Environmental Legacy Project.

### Grind Gears Up with Yamaha

LOS ANGELES—Co-owners Michelle Garuik and Sangtar Heer of audio post facility Grind Music and Sound, located in Los Angeles, with clients that include Red Bull, FOX Sports, CBS Sports, NBC Sports and Specialized Bicycles, recently installed a Yamaha (yamahaca.com) Nuage advanced production DAW system purchased through Hollywood Sound Systems for its mix room.

### Lectro Investigates NOLA Sound

NEW ORLEANS, LA—Robert C. Bigelow, production sound mixer for CBS TV's *NCIS: New Orleans*, employs Lectrosonics (lectrosonics.com) Digital Hybrid Wireless technology on the show, including eight SMV, four SMQV and six UM400a beltback transmitters and two HM handheld transmitters, plus four SRb dual channel slot mount receivers and UCR411a compact receivers, with SNA600a adjustable dipole antennas and ZSC24 passive RF splitters.

### Lievsey to Receive MPSE Career Award

STUDIO CITY, CA—The Motion Picture Sound Editors (mpse.org) will honor Academy Award-winning supervising sound editor and re-recording mixer Skip Lievsey with its Career Achievement Award at the MPSE Golden Reel Awards ceremony, February 15, 2015 in Los Angeles. Lievsey, who co-won the 2014 Academy Award for Best Sound Mixing for his work on *Gravity*, has contributed to nearly 150 films over his 30-plus year career.

## Pursuing Authenticity For *Unbroken*

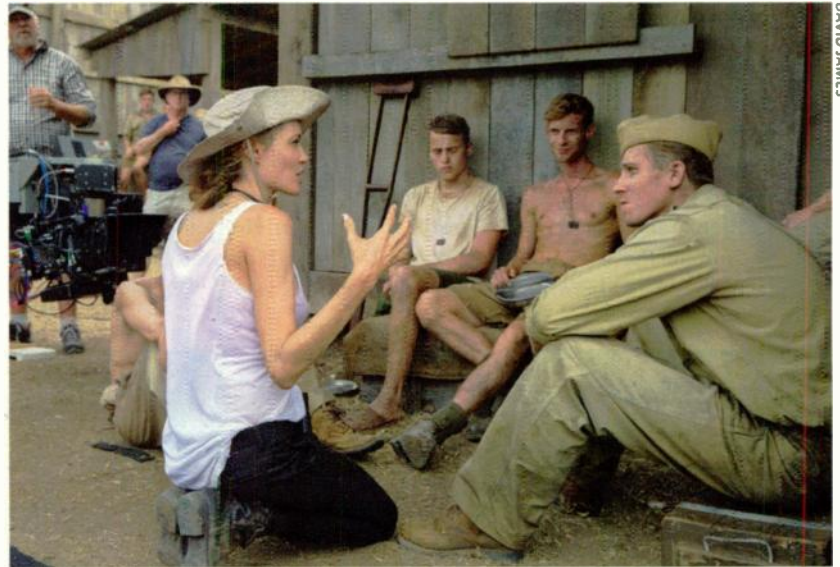
BY STEVE HARVEY

UNIVERSAL CITY, CA—Angelina Jolie was very specific in her instructions to the team at NBCUniversal StudioPost regarding *Unbroken*, her second feature film as director, which opened Christmas Day. "She said she really wanted it to be authentic to the time period," says Becky Sullivan, co-supervising sound editor.

*Unbroken* is based on author Laura Hillenbrand's 2010 bestselling biography of Louis Zamperini, a delinquent youth whose energies were channeled into distance running, taking him to the 1936 Berlin Olympics. In 1941, he joined the U.S. Army Air Corps and fought in the Pacific theater. His plane was shot down and, with the only two other survivors, he endured 47 days adrift in a life raft, followed by two years of torment in a Japanese prisoner-of-war camp.

"[Jolie] gave us a lot of freedom, but she was very specific about what she wanted the sound to convey emotionally," says co-supervising sound editor Andrew DeCristafaro. "What's great about this film for sound people is the fact that it encompasses everything from big action to pure, delicate nuances about the wind and cloth movement, all in one soundscape."

Having tracked down the correct plane, a B-24 Liberator, it was six months before it arrived in the L.A. area, where the team swarmed over it, capturing every sound, inside and



DAVID JAMES

*Unbroken* director Angelina Jolie (left) "...understands what sound can do—all sound, not just loud effects or music or whatever, but also dialogue," said the film's re-recording mixer, Jon Taylor.

out, for the opening two reels of the film. "We were like, 'What's this? I don't know, but I'm going to record it,'" laughs DeCristafaro.

Sullivan obtained the bamboo stick from the props department that "The Bird," a particularly sadistic prison guard, uses on Zamperini, and had the Foley team record numerous hits with it. "[Jolie] was really specific about how she wanted that sound. The guys layered different things, and went through different tests with her," says Sullivan.

"The same thing where our hero is punched by 200 men; for each punch, she really wanted to hear flesh, bone, teeth. She said to me one

day, 'This is no Bruce Willis movie. I want it real. I want for them to really hit him, and to hear it.'"

"She understands what sound can do," says re-recording mixer Jon Taylor. "All sound, not just loud effects or music or whatever, but also dialogue."

The life raft scenes, in particular, required extensive ADR and effects recording. "We had some recordings that were useable. Others we had to go out and get ourselves, towing a raft behind a boat in the middle of nowhere, and trying to find somewhere where you don't hear anything, other than just air and ocean," says

(continued on page 32)



## Music Video In A Multi-Format Market

BY STEVE HARVEY

HOLLYWOOD, CA—MTV may have moved away from its original focus, but anyone looking for a fix of music television has any number of options available to them these days. At LiveTV:LA, a new conference established by the Sports Video Group (SVG) and TVNewsCheck together with *Variety* and *Variety 411* magazines, the "Sound+Vision: Perspectives in Live Music TV" panel discussed some of the technical challenges as well as the business opportunities associated with the production and distribution of music and video.

With a relatively finite number of award shows and major sports finals being broadcast, how is a mobile production company to find new business? As Peter Kimball, senior ac-



Sharing their insights at the Sound+Vision: Perspectives in Live Music TV panel were (l-r): Peter Kimball, Hank Neuberger, Stacey Foster, Salli Frattini, Michael Fellner and Roger Charlesworth.

count manager, entertainment, NEP Broadcasting, noted, "The truck that does the Chicago Cubs on Sunday can do a music festival the next day, because we use the same technology."

Music festivals have become a significant market for NEP since 2006, according to Kimball, with the company covering about 1,000 bands per summer, starting around April.

The company annually covers some of the largest festivals in the country, including Outside Lands and Austin City Limits.

One NEP A unit can handle up to six stages at a festival, he said. That density was made possible by the tsunami of 2011, which disrupted tape production in Asia. The broadcast production workflow has since embraced hard drives, eliminating bulky tape equipment. NEP's Trio Video division has resolved another technical challenge, oper-

ating cameras at 23.98 fps for the cinematic look while also being able to transmit at 1080p, he said.

Hank Neuberger, president of Springboard Productions, has been delivering live music, primarily online, for many years. "I have found a wonderful opportunity to produce music festival live streams," he said,

(continued on page 33)





## Unbroken

(continued from page 31)

DeCristafaro.

To take the three actors back into the scene for ADR, Sullivan had them lie on the floor propped up on seat cushions, and turned the lights out. "I took all the water bottles off the stage, and had them breathe in

and out a lot to get their throats dry. As they progress on the raft, it gets drier and drier," she says. "They did a great job."

Indeed, everyone stepped up to the plate, according to DeCristafaro, including dialogue editors Laura Harris and Karen Vasse, composer Alexandre Desplat, his music mixer, Jonathan Holt, and Kim Carmon and Denise Hokimoto, the music editors on the stage. "We really worked



The *Unbroken* post team included (clockwise from top) Jon Taylor, Andrew DeCristofaro, Becky Sullivan and Frank Montano.

hand-in-hand with our picture editors, Tim Squyres and Billy Goldenberg," he adds.

"Alexandre Desplat nailed it," agrees Taylor. "But there are many big scenes that have no music whatsoever, where you might expect it—and the sound carries it. It's beautiful."

Re-recording mixer Frank Montano reports that the mix took place in Dub 6 while NBCUniversal's crew was upgrading the Hitchcock Theater for Dolby Atmos and Auro-3D. "As we moved through the picture, it just got more and more developed, better and better, and way cleaner," says Montano, crediting effects editors, Jay Wilkinson and Eric Norris.

"The pre-dubs were laid out with as much separation as possible to allow the point-source panning material that ultimately turned into objects would be available without any additional sound editorial needed," adds DeCristafano. "We did 7.1 and 5.1 in Dub 6, then came over [to the Hitchcock] and did eight days on the Atmos mix."

The Hitchcock Theater equipment upgrade included the addition of 78 new JBL, Meyer Sound and custom speakers to support 5.1, 7.1, Atmos, Auro-3D and IMAX 5.0, 6.0 and 12.0 mixing, mastering and playback. The crew installed 96 new amplifier channels, totaling 140,000 watts, and more than two miles of new cabling. The stage's Harrison MPC4-D mixing console handles 5.1, 7.1, 11.1, IMAX and Dolby Atmos panning, and features an integrated dynamic monitoring router.

"During the process, Louie, our hero, passed away," reports DeCristafaro. "You feel like you have to bring your A game, and to make sure we're telling the truth of his story. We have a moral obligation to do this."

NBCUniversal StudioPost  
[universal.film-makers-destination.com/home/post-production-media-services](http://universal.film-makers-destination.com/home/post-production-media-services)

THERE'S MORE ▶ Read more about the making of *Unbroken* at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015)



More than just connectors. We put 40 years of experience and our passion into our products. Whether it's a rock band, stage lighting, or a broadcast studio – Neutrik offers innovative connector solutions, mating passion with perfection.

# NEUTRIK

SETTING STANDARDS SINCE 1975

Join us on facebook | [www.neutrik.com](http://www.neutrik.com) | [www.experience-neutrik.com](http://www.experience-neutrik.com)



## Live Music TV

(continued from page 31)

including Coachella, Stagecoach, Lollapalooza, Bonnaroo, Austin City Limits and Outside Lands. “We also deliver a number of festivals to cable television; we’ll be doing at least three in 2015 for AXS-TV.”

As Neuberger noted, “Music thrives online. It’s not doing so well on broadcast television.” The metrics bear this out. At Coachella, Springboard, using equipment packages developed with NEP, covers six stages, 12 hours a day, and generates three simultaneous live streams with overnight replay—a total of some 200 hours of programming. The average viewer watches for over 40 minutes, and some for up to an hour, he reported, compared to the more typical web engagement of seven to eight minutes.

Some shows, such as *Saturday Night Live*, have become well known for their live music. *SNL* does its best to present the artist in the best-possible light, such as when it recently allowed Prince to play a single eight-minute medley instead of the usual two four-minute songs, a first for the show. But as Stacey Foster, the show’s co-producer, reported, there sometimes have to be compromises. “Some artists only want 2.0, while some are fine with 5.1,” he said. However, he said, “Two years ago, 30 percent of what was broadcast could be streamed. Now it’s almost 100 percent.”

There are challenges with clearances, agreed Neuberger. “There are lots of stakeholders,” he said, adding, “There are lots of landmines.” Often, he continued, Springboard is asked to carve out separate content for video-on-demand presentation. There are different rights and different payments depending upon the distribution medium, he said.

“It’s all about on-demand,” according to Salli Frattini, president and executive producer for Sunset Lane Entertainment. Frattini spent 20 years at MTV, presenting shows such as the VMAs, before starting her own company and producing one of the first music streams via YouTube. There is a move toward short-form content, she said, with festivals often putting out individual songs rather than full performances. The medium—specifically, the lack of universal broadband access—also affects production, she noted, with content creators using less fast cuts and relying more on close-ups.

The visual presentation of EDM shows, which have a huge audience, can be a challenge, said Neuberger.

EDM artists are relatively static and typically don’t want to be seen. “We shoot the audience 50 percent of the time, versus a rock band, which is 5 percent audience,” he said.

There has been a decline in live music for DVD, according to Michael Fellner, owner of Fellpro, an independent production company specializing in music and awards shows. But by jumping into an artist’s tour for a week, say, with anything up to 40 cameras, multiple revenue streams

may subsequently be generated by editing and releasing content to different platforms, such as television, cable or theaters, he said.

The type of content and the distribution platform are largely driven by demographics, said Fellner. The younger audience prefers streaming, while an older audience is more likely to watch something like a Jay-Z and Beyoncé concert on HBO.

As Neuberger also pointed out, handheld device use is increasing ev-

ery year. “Forty to 50 percent are watching on mobile,” he said.

**Fellpro**  
fellpro.com

**NEP**  
nepinc.com

**Springboard Productions**  
Springboardproductions.net

**Sunset Lane Entertainment**  
Sunsetlaneentertainment.com



# The Right Relationship



For nearly 60 years Dale Pro Audio has served the Broadcast, Studio Recording, Post Production, Live Sound, and Contracting/Installation markets with distinction.

Dale carries the industry's top brands, stocks thousands of products in two New York City locations, and is staffed by sales professionals second to none.

Whether you're outfitting a full blown Pro Tools system or just buying connectors, you can count on Dale to deliver a great experience before and after the sale.

Because relationships matter.

Flatiron District, NYC  
22 West 19th Street

www.daleproaudio.com | 888-462-7828

Jamaica, New York  
148-04 95th Ave



innovations: the manufacturer's view

# Sophistication Through Simplicity

## APOGEE ENSEMBLE 30X34 THUNDERBOLT 2 AUDIO INTERFACE

BY ROGER ROBINDORÉ

A typical digital audio workstation (DAW)-based recording system offers amazing functionality and quality, but can seem almost infinitely complex. Every year, DAW manufacturers introduce even more features to cover an ever-expanding set of workflows, while hardware manufacturers accrete more and more features in an effort to distinguish their products. In the end, how much of this complexity does the user need, or even fully understand? Does complexity enhance workflow, or get in the way of your creative process?

At Apogee, we design our audio interfaces to integrate simply and seamlessly into the creative workflow, where users are empowered to master their studio like a finely-crafted instrument. Steve Jobs once said “simple can be harder than complex,” and we’ve adopted this idea as a central tenet of our product design. It takes a great deal of engineering effort to achieve simplicity, and our new Ensemble Thunderbolt represents the pinnacle of this approach. Two spe-



Apogee Ensemble 30x34 Thunderbolt 2 Audio Interface

cific innovations—the Creative User Interface and our low-latency, high-efficiency Thunderbolt driver—are key aspects that make Ensemble such an effortless interface to use.

Since the first Ensemble was introduced in 2007, Apogee has refined what we call the Creative User Interface, a concept whereby the highest priority controls are accessible from multiple locations, while more infrequently used controls are found exclusively in our control software, Apogee Maestro. For example, the monitor speaker output level, a control that you’ll probably want immediate access to throughout your session, may be adjusted from Ensemble’s front panel, from Apogee Maestro software, from your Mac’s keyboard or several locations in the OS. On the other hand, the

optical I/O format is controlled from Maestro—you can set this once, then close the software so it’s out of your way.

The new Ensemble represents the most refined expression of this concept. We’ve included just the right amount of control and display on the front panel to access everything you’ll want onhand during your session and show you the hardware’s current state.

Ensemble’s low-latency, high-efficiency Thunderbolt driver allows you to adopt a greatly simplified workflow that just isn’t possible with many other interfaces.

To work around latency (the throughput delay inherent to any digital audio system), most audio interfaces offer a low-latency mixer, whereby a direct signal path from

hardware input to output is created, and playback from the DAW is mixed with this direct path. As is often the case, the workaround solves one problem but creates others. This has led many interface manufacturers to mold their latency workarounds into complete ecosystems, with full mixing functionality, routing and plug-ins, all independent of the user’s DAW session. With each new release, these ecosystems become more and more complex.

At Apogee, we’ve taken an alternate approach: We’ve spent a significant amount of time to reduce throughput latency and increase driver efficiency so the low-latency mixer isn’t needed. This greatly simplifies your workflow, as monitor mixes, headphone mixes, plug-in processing, virtual instruments and other settings are all controlled from one window—your DAW session.

When developing an audio driver, greater efficiency results in lower latency—the more efficient the driver, the lower the internal “safety” buffers and DAW software buffers may be set without dropouts, resulting in lower latency. Ensemble’s Direct Memory Access (DMA) Engine, at the heart of the driver, includes innovations that increase efficiency and lower latency.

The DMA Engine, running on Ensemble’s FPGA logic chip, allows Ensemble to read and write digital audio data directly with your computer’s memory, with minimal intervention of the computer’s CPU. By reducing the driver’s load on the CPU, the CPU is freed up for things like plug-ins and virtual instruments. Now, DMA is available to any Thunderbolt peripheral, so the difference is how we’ve implemented the data transfer process—it’s been precisely customized for the way that OS X Core Audio reads and writes data to memory. As an example, Ensemble features a full, 32-bit digital audio

(continued on page 39)



### STANDARD & CUSTOM STANDS AVAILABLE

Find the perfect IsoAcoustics® stand for any size and application at [www.isoacoustics.com](http://www.isoacoustics.com)



Check out the MODULAR ALUMINUM SYSTEM

Use the new Online Calculator to find or specify the right IsoAcoustics® stand for you.

[www.isoacoustics.com](http://www.isoacoustics.com)



### AWARD-WINNING ISOLATION STANDS

IsoAcoustics® stands are built with a unique, patented isolation technology that allows your speakers and instrument amplifiers to “float” in free space, letting you hear clear, authentic sound.

*I found when using the IsoAcoustics stands under my NS10s that I had an easier time mixing due to a more stable stereo image and clearer bass frequencies.*

—Elliot Scheiner, Grammy Award-Winning Recording & Mixing Engineer

*Pretty remarkable, ingenious, clever device.... and they work.*

—Frank Filipetti, Grammy Award-Winning Producer

*I noticed immediately a clarity in the stereo image and the frequency response that had been missing in my NS10's...*

*The IsoAcoustics generally made them more enjoyable to listen to, no small feat as I am sure you know...*

— Vance Powell,

Grammy Award-Winning Chief Engineer, Blackbird Studios



Hear the NEW IsoAcoustics *Aperta*™ at NAMM booth 6844



# QSC TouchMix-16 Compact Digital Mixer

BY MORTEN STØVE

It seems like there is a smorgasboard of new small digital consoles on the market, including the new QSC Touchmix-16, which I've used over the past two months. It's a 16-channel digital console with practically everything you can imagine built-in.

The past eight weeks have been a whirlwind: the Kristin Korb Trio tour in Sweden and the US; a tour with the vocal group Lines for Ladies featuring Sheila Jordan and Kristin Korb; and finally, a Jazz cruise with JazzDagen from Costa Rica to Miami. Manning the helm at FOH, I've tried to travel light with a number of the microphones I need—all DPA and Neumann—a TC Helicon monitor and a small digital console. I typically only use around 10 to 12 channels, so it is not a major production.

You've surely experienced this as I have: Every venue seems to have a different console. If it's one of the new digital consoles, it takes a minute to find your way around (while you keep telling yourself that you really *are* a sound engineer). In touring scenarios like mine, why *not* travel with your own mixer?

## FEATURES

The TouchMix-16's main features include 16 input channels, eight to 10 auxes, four effects channels plus basic recording capabilities. Using its pre-programmability—setting parameters before the gig—setup is very quick; users then simply name main channels, monitor channels and effects.



TouchMix's built-in Wizard allows effects to be set up swiftly and easily. [Visit this link for QSC's comprehensive rundown of features: [qsc.com/products/Mixers/Touchmix\\_Series/TouchMix-16](http://qsc.com/products/Mixers/Touchmix_Series/TouchMix-16).—Ed.]

## IN USE

I have now been on tour with the TouchMix-16 for eight weeks, first in Sweden for a week with the Kristin Korb Trio—vocal, bass, piano and drums—using a 10-channel set up with only one monitor. My normal procedure is this: I begin by playing some tunes through the PA just to get used to the room; I rig everything else up while the band warms up; and finally, I play my PA test tune—Bill Cantos' "Don't Say

A Word"—for EQing purposes. The EQ on the TouchMix-16—a 1/3-octave graphic EQ with four-band parametric on stereo auxes—works great.

"Just like arriving at a venue with an unfamiliar console, I wanted to see if I could figure it out right away. I did, yet when I hit a wall and wanted to flick through a manual, it was right there at the press of a button: I simply clicked INFO on the right side of the mixer."

Morten Støve

I quickly discovered the TouchMix-16's very intuitive nature. On purpose, I did not read its manual before I turned it on. Just like arriving at a venue with an unfamiliar console, I wanted to see if I could figure it out right away. I did, yet when I hit a wall and wanted to flick through a manual, it was right there at the press of a button: I simply clicked INFO on the right side of the mixer. How cool is that?

After the Sweden tour, we did two weeks in Germany for the Lines for Ladies tour featuring five vocals, four monitors plus piano and bass. The shows ranged from a 500-seat church to a variety of small jazz clubs. One gig included a "PA" mounted on the back wall; that was interesting, to say the least, with the five vocal mics up front. Again, the onboard EQs and notch filters helped me. I finally disconnected the two frontline monitors (since they just made it all sound like an undefined cheese sauce). I used two DPA d:facto II and three Neumann KMS 105 live vocal mics; the pre-

amps in the console complimented the mics very well.

Speaking of preamps, a common concern with modern small live mixers is preamp and effects quality. In general, preamps are getting better, yet effects remain questionable from mixer to mixer. That said, I like the TouchMix-16's effects; its range of parameters allow for some fine 'verbs. Yes, I did connect a TC Electronic reverb to the TouchMix's aux channels before the tour—and yes, it was nice—but I had no space for more gear on this tour and what QSC offers was fine.

In every venue where I used the console, QSC's iPad app was used as the control surface. While you'll miss the beautiful dial knob on the TouchMix, it works fine with the iPad. I rarely touch the app's "faders," but instead use the Nudge +/- "buttons" on the right side of the controller. You can set it in Normal or Fine Control mode for smaller adjustments. I took me a couple of

shows to discover that this was the thing to do.

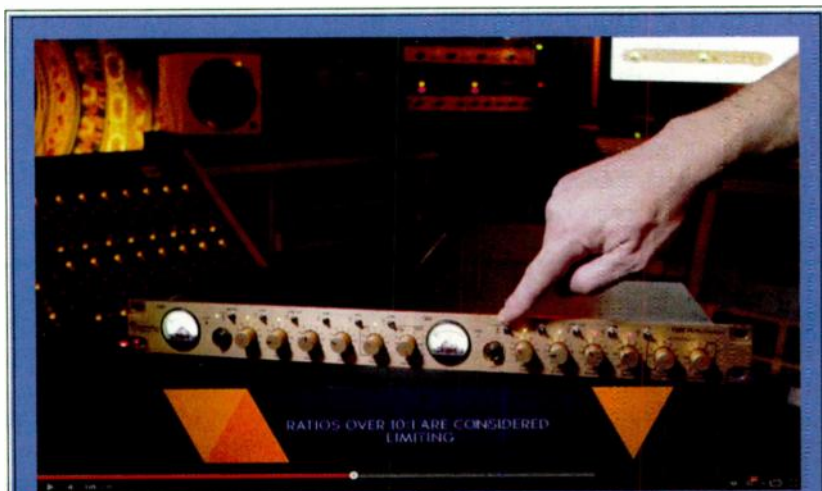
TouchMix also offers recording features—all individual channels via multitrack capabilities—so I bought a SSD with converter cable and connected it to the USB port on the backside of the console. I've recorded a few shows and it sounds very clean; I can't wait to get home and try recording my grand piano with this unit.

On the back panel, there is an Ethernet port; whether it is for a future LAN stage box connection, I don't know. If I could hook a router up to it, I believe the network connection would be stronger.

## SUMMARY

For what you get, the TouchMix-16's price (at \$1,299 street) is amazing. I will be travelling with the Touchmix16 wherever I go from now on.

Morten Støve co-founded DPA Microphones and is front-of-house/recording engineer for jazz vocalist/bassist Kristin Korb ([kristinkorb.com](http://kristinkorb.com)).



## PAR-Tube Presents Fredenstein F200

We proudly present "PAR-Tube," a new initiative starring *Pro Audio Review* Contributors in an ongoing video-based review, applications and new product presentation series. Our latest instalment—a Review Preview "unboxing" vid—is presented by Rob Tavaglione on the F200 microphone preamplifier/compressor by relatively new pro audio manufacturer Fredenstein.

[prosoundnetwork.com/PAR-Tube\\_ReviewPreview\\_FredensteinF200](http://prosoundnetwork.com/PAR-Tube_ReviewPreview_FredensteinF200)



## From The Carport

■ GARRITAN/ABBEEY ROAD CFX CONCERT GRAND ■ SONOMA WIRE WORKS GUITARJACK 2 USB ■ CORNING THUNDERBOLT OPTICAL CABLES ■ CME XKEY USB MIDI KEYBOARD ■ GRUV GEAR CLUB BAG

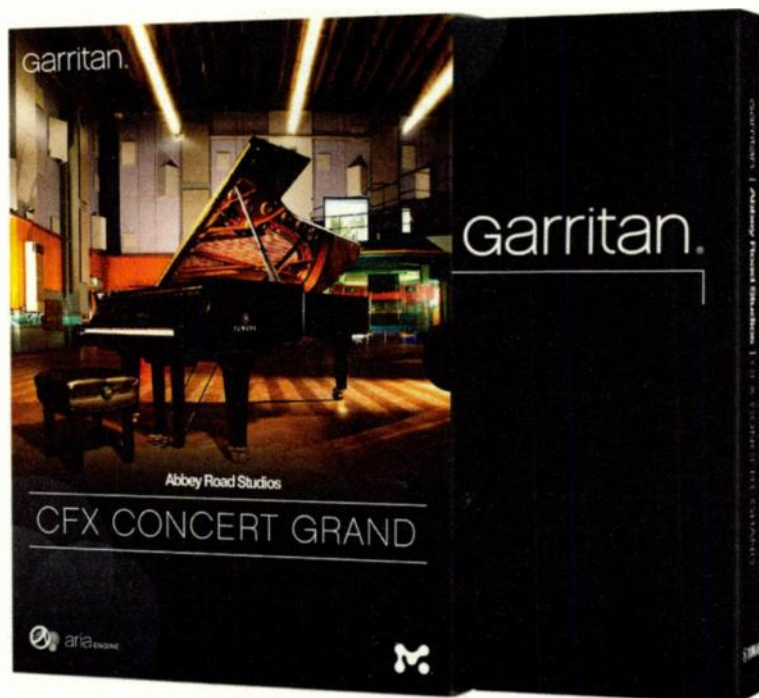
### GARRITAN/ABBEEY ROAD CFX CONCERT GRAND

While I usually rely on musicians to provide their own sound sources, I feel that having the ability to provide a great piano sound is part of being a well-equipped studio. The new Garritan/Abbey Road CFX Concert Grand Virtual Piano (\$249) has redefined the standard as to what that entails.

In 1991, Yamaha began developing the CFX Concert Grand, a nearly two-decade project. They formed a 40-member team of top piano designers, technicians, craftsmen and players who proceeded to deconstruct and then rebuild the concert grand piano. Aspects of traditional piano design were evaluated, improved and tested. In the final stages of the design, numerous prototypes underwent thousands of hours of testing in concert halls around the globe. The result was the \$180,000 CFX Concert Grand Piano, a spectacular instrument that surfaced to worldwide acclaim in 2010.

A couple years later, Abbey Road's Mirek Stiles teamed up with Garritan, one of the world's leading providers of virtual software instruments, to sample the CFX Concert Grand in Abbey Road's acclaimed Studio One. The result is the Garritan/Abbey Road CFX Concert Grand, and it's quite amazing.

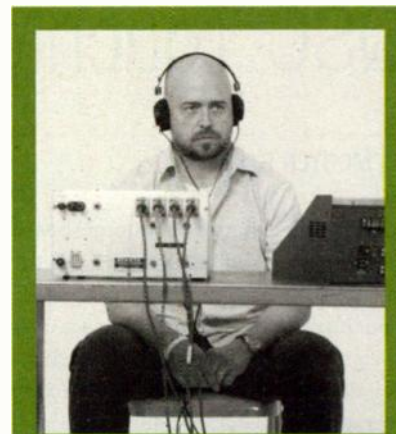
The CFX Concert Grand sound library is AAX, RTAS, VST, and AU compatible and powered by the ARIA



Player. Due to its large size, Garritan doesn't offer a download option, but the virtual instrument is delivered on a USB flash drive that includes both 32- and 64-bit versions, both as a plug-in and a standalone player. While the full version requires 122 GB of free hard disc space, the compact version will fit into 24.5 GB of space. The plug-in version works best for my applications; I'm always using it within Pro Tools for either recording piano or replacing a piano that has already been played. Musicians who aren't interested in recording but sim-

ply want to play will have better results using the standalone instrument; it doesn't require utilizing the instrument in conjunction with a DAW.

Under the direction of Abbey Road's staff, the CFX was recorded with multiple microphone setups for specific music styles. The three setups include: classic (natural tone), contemporary (bright), and player (piano seat experience). Each setup includes a group of editable presets that include starting points for mic, EQ and ambience settings. Editing is provided in four different page views: Main,



BY RUSS LONG

Russ Long lives and works in Nashville, engineering and producing a wide variety of music and film projects.

Piano, Studio and Advanced. A basic mixer with close and ambient microphone channels, each with a stereo width control alongside a master control, is always displayed. The master control includes a switchable limiter that prevents output clipping. The Piano view provides specific piano controls including sympathetic resonance, sustain resonance, release volume, release crossfade, release decay and pedal noise. The Studio view provides a three-band EQ (hi, sweepable mid, low) provides independent equalization for the close and ambient mics. Additional warmth can be attained via the variable saturation control. The Advanced view allows the fine-tuning of velocity curves, dynamic range, system RAM, etcetera.

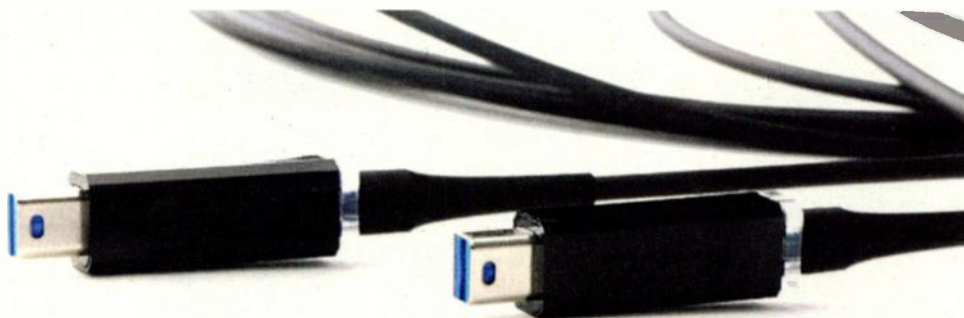
Abbey Road's engineers have done an exceptional job capturing what is arguably the finest piano in production today, while Garritan has provided outstanding control of the sampled instrument via an intuitive GUI. Selecting the desired variation of the instrument is quick and easy, and once the proper instrument has been selected, it can be finessed into the perfect sound via the instrument's advanced settings.

Garrigan  
[garrigan.com/products/cfx-concert-grand-virtual-piano/](http://garrigan.com/products/cfx-concert-grand-virtual-piano/)

### CORNING THUNDERBOLT OPTICAL CABLES

As I covered Corning's Thunderbolt Optical Cables last year for *Pro Audio Review*, I couldn't pass up another look. As Thunderbolt's 10 Gbps data transfer speed continues to take the recording world by storm, the only significant downfall has been the 3-foot copper cable length limitation, as there are always instances where you want to be close to some of your Thunderbolt devices, but not close to others. In addition to being smaller and lighter than copper cables, Corning's Optical Thunderbolt cables are available in 5-, 10-, 30- and 60-meter lengths. Corning has recently added a 5.5-meter cable length option, too. I continue to use my 10-meter version daily and it works flawlessly.

Current prices are as follows: 5.5m, \$179.95; 10m, \$299.95; 30m, \$659.95; and 60m, \$1,299.95.  
Corning, [corning.com/opcomm/OpticalCablesbyCorning/products/thunderbolt.aspx](http://corning.com/opcomm/OpticalCablesbyCorning/products/thunderbolt.aspx)





## CME XKEY USB MIDI KEYBOARD

I picked up the CME Xkey USB MIDI Keyboard (\$99 street) after seeing a demo of it at the 2014 Summer NAMM show. Finished in stainless steel, the slim (just over 1/2-inch high) and elegantly designed two-octave controller looks right at home next to a MacBook Pro or iMac, and its full-size keys and feature set make it more playable than other controllers in its size and price range. In addition to velocity, the keyboard offers polyphonic aftertouch, making it easy to accentuate a single note in a chord that is being held out. Pitch and modulation and controls are spring-loaded sensors rather than switches and provide plenty of expressiveness, and the Hold button can be assigned to latch if needed.

I've been toting the CME Xkey around with me for the last couple of months—it fits perfectly in my Gruv Gear Club Bag, reviewed below—and it continues to come in handy, time and time again. Not only does it provide an

easy way to play my virtual synths while on the go, it's a great way to trigger drum sounds, and its small footprint allows any studio to ensure it always has a keyboard controller ready to go without eating up too much space. Since the keys are spaced identical to a standard size keyboard, it takes no time to adapt to the instrument, and while the feel is somewhat different than most controllers, it feels natural in a relatively short amount of time.

The only connection on the Xkey is a micro USB socket on the rear of the right side. The keyboard includes an approximately 1-meter micro-to-standard USB cable to connect the keyboard to a computer. iPad connectivity requires Apple's Camera Connection Kit. The keyboard is bus-powered and includes a small LED that illuminates when it is connected.

While the Xkey works fine straight out of the box, the free Xkey Plus software app provides complete cus-

tomization of the keyboard's behavior, including a velocity curves editor, comprehensive configuration of the controller's sensitivity and timings, access to all of the keyboard's parameters and the ability to configure new assignments to any or all of the keys and buttons. Any operation customization is stored on-board so there is no need to use the app again until further adjustments need to be made. Xkey firmware updates can also be performed with the application. Xkey Plus is currently available for iOS, MacOS and Windows platforms; the Android app is pending.

The Xkey's portability is one of its key features and the CME Supernova Xkey Protection Carrying Case is the perfect way to protect the keyboard while taking it on the go. The \$25 dual-zipper, padded polyester case looks as good as the keyboard and will provide all the necessary protection for the keyboard.

When it's all said and done, I'm sold on the Xkey. It's the perfect portable solution to playing music on my iPhone, iPad and MacBook Pro. At under a Benjamin, I can actually afford a couple. CME  
cme-xkey.com



## GRUV GEAR CLUB BAG

Finding the right bag to haul your life from studio to studio is quite possibly more difficult than locating the Holy Grail. However, I believe I've finally solved the quest; after carrying the Gruv Gear Club Bag (\$149), a backpack designed for people whose work focuses on technology, for two and a half months now, I simply love it.

There are a few things that set this bag apart from all others. First, its large Glove Box compartment easily transports a pair of studio headphones, either in a carry bag or by hanging from the Glove Box's overhead clip (which can alternately be used to carry sunglasses). The space is secure from other sections of the bag, so there is no danger of the headphones being damaged in transport.

I find myself flying on a regular basis, too, and the ScanFly system makes TSA security lines a breeze. The ScanFly system begins with the Sliiv (sold separately), a padded, breathable mesh sleeve available in



11-, 13- and 15-inch sizes designed to protect a tablet or laptop inside the Club Bag. The Sliiv attaches to the Club Bag via a pair of ScanFly tethers. When you

get to the security line, instead of having to remove your laptop from the bag, you simply unzip the tech compartment, flip out the Sliiv and send it down the x-ray belt, leaving your computer or tablet attached to the Club Bag. It works wonderfully and I've even had TSA agents comment on how impressed they are with the bag.

The Club Bag has large cargo pockets on both sides that are perfect for power cables, chargers, iPods or car keys, as well as two large compartments, of which both can be accessed by either side of the bag. I use the large pockets to carry hard drives, a small audio interface and even a small toiletry kit. All three of the large spaces are separated by Velcro-attached, removable soft shelves that can be setup to accommodate specific gear-carrying needs.

The Gruv Gear Club Bag backpack is comfortable to carry even with significant weight, and the bottom of the bag has a rubber-like, waterproof bottom-lining, adding even more protection. Anyone in search of the perfect gig bag should give Gruv Gear's Club Bag backpack a serious look.

Gruv Gear  
gruvgear.com/club-bag

## SONOMA WIRE WORKS GUITARJACK 2 USB

I purchased the Sonoma Wire Works' GuitarJack Model 2 after reviewing it a couple of years ago. The iOS-only interface was leagues above anything else available for mobile devices at the time. Unfortunately it wasn't compatible with Mac OS or Windows so it was a hefty investment for anyone who only occasionally records with an iOS device. The newer GuitarJack 2 USB (\$129 street) is sonically identical to the GuitarJack Model 2 but it adds support for Mac OS, Windows, and Android devices.

Still marketed primarily as a tool for recording guitar and bass, this compact, well-made interface is centered on a high-quality, 24-bit AD/DA converter. It includes a 1/4-inch instrument input, a 1/8-inch stereo microphone/line input and a 1/8-inch headphone output. Identical in size to the GuitarJack Model 2, the 2.25-ounce device measures 2.5 inches by 2.3 inches by 0.6 inches. The interface doesn't provide phantom power, so if a condenser mic is being used, phantom power must be provided from a separate phantom power supply (such as the Audio-Technica AT8801).



The headphone output is exceptionally high quality, far better than anything I've heard built into an iOS device or laptop. Coupled with my MacBook Pro and a pair of BLUE Mo-Fi or Focal Spirit Professional headphones, I've spent many a day both working and listening for enjoyment through the GuitarJack 2 USB and it sounds killer.

In addition to listening to music through iTunes and Audirvana Plus, I've had success using the GuitarJack 2 USB along with iOS devices running FourTrack, StudioTrack, AmpliTube, DigiTech Stomp Shop, GuitarTone, Garage Band and studio.HD, and a MacBook Pro running Logic, Studio One 2, Nuendo and Pro Tools. Sonoma Wireworks  
sonomawireworks.com/guitarjackusb/



# Emotiva Pro Stealth DC-1

BY FRANK WELLS

Emotiva Pro (the professional division of direct sales home theater and audiophile manufacturer, Emotiva) has made friends with its ribbon tweeter-loaded, powered studio nearfield monitor line. There are also pro applications for products in Emotiva's core line, like the 7.2-channel XMC-1 preamp/processor, which includes balanced I/O on XLRs. Along with monitor loudspeakers, Emotiva Pro offers the Stealth DC-1 24-Bit/192 kHz capable DAC—a multifaceted two-channel converter/headphone amp/monitor volume controller with a friendly price (\$499 direct or via Amazon).

I've lived with the DC-1 for several months now, it sitting alongside—and used interchangeable with—my standard reference (the widely familiar and now “vintage” original and pre-USB Benchmark DAC-1). In short, I never felt like I was compromising by using the DC-1, and several features offered extra convenience

(many, if not most, of those performance features, are available on later Benchmark DAC models, to be fair, though at a significantly higher price).

With a Prism dScope III analyzer, I confirmed the published specs for the DC-1, measuring insignificantly higher THD+N relative to the spec, and compared to the DAC1. I also measured very similar frequency response performance compared to the DAC1, within the spec of +/- 0.1 dB across the audio band. The headphone circuits have a default 2 dB low-end boost that's user-defeatable via internal jumpers, which is the way I used the DC-1—flat. Plugging in headphones mutes the line outs.

With a 0 dBFS, 1 kHz input, the THD+N was beneath .0006% until cranking up the output pushed the level a bit above 20 dBu (the .001% threshold was reached at 22 dBu). At full volume, the output was not clipping, with a 25.65 dBu measured max output level at a still respectable THD+N of .0025%, the N increasing, not the THD (Most of the har-



monics visible with an FFT analysis were 3rd and 5th. For comparison, the Benchmark DAC1 had a max out of 29.25 dBu, maintaining .000x% THD+N till the onset of clipping, though all the harmonics through the 5th were visible through a lower wideband noise floor).

The DC-1 can operate in asynchronous mode (how I used it), with an onboard ASRC providing jitter immunity (it handled all the jitter the dScope could throw at it), or synchronously with the input clock. There is no ability to synchronously lock to an external clock other than that in the selected input data stream.

As a volume controller, the DC-1 offers .25 dB volume steps. The front panel controls are velocity sensitive

for faster level adjustment. Sustained pressure on the remote level controls also speeds the gain change. A Fixed output level can be selected, with 0 dBFS producing a nominal 14 dBu output. That implies that the rest of the DC-1's output level is produced by output amp gain, also evidenced by a rising noise floor with level increase on the upper range (though this increase was never audible in my experience). 0 dBFS = 14 dBu is not a common professional scaling level, so I'd find the DC-1 less attractive as a reference DAC feeding external monitoring or processing paths.

The output level ranges up to +12 on front panel display, further suggesting 12 dB of gain above nomi-

(continued on page 39)



# Etymotic Research Inc. Music·PRO Electronic Earplugs

The Music·PRO (\$299) is an adaptive noise-reduction earplug that epitomizes the old adage “less is more.” Now in its second generation (and I've field-tested both), Etymotic Research Inc.'s active, high-fidelity musicians earplugs are even more low profile, and at a lower cost than when initially launched, without sacrificing any features.

Though far from protruding before, the universal-fit Music·PRO has shaved down its original, more antennae-like form factor and been reconfigured as a “bean” that nestles even more comfortably into the auricle. An assortment of more than five ACCU-Fit tip styles (from more plush foam to deeply penetrating triple-flange silicon) assure you can achieve that imperative seal in the ear canal.

Powered by #10A zinc air batteries (inserted in an easily accessed swinging drawer), the Music·PRO combines high-sensitivity microphones, high-definition balanced-armature drivers and K-AMP signal processing, the latter functioning in two modes. By flipping a diminutive



toggle (accessible while the earplugs are inserted, though you might not want to trim your nails to the quick), you can pick between +6 dB with -9 dB ducking, or “open ear” levels with -15 dB ducking.

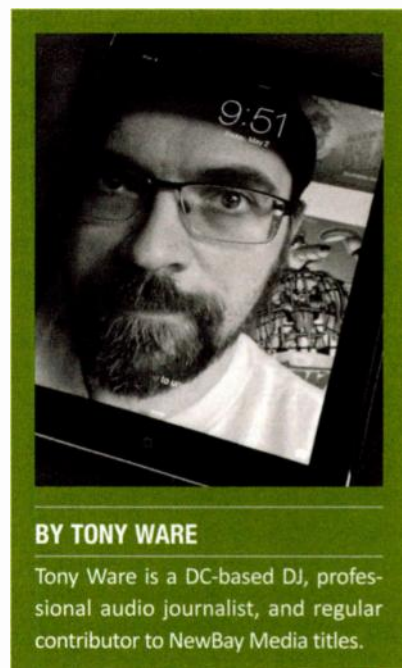
What this delivers, unlike frequency-muffling foam earplugs, is a wide bandwidth of 40 Hz to 16 kHz, either boosted or at normal volume. However, regardless of mode, once a high-level tone is detected, the circuit reduces levels instantaneously, protecting you from the damage a large swell or strike can cause. The level reduction is applied uniformly, ensuring the dynamic range isn't impacted, even as

the sound pressure is adjusted to the equivalent of a -35 dB passive earplug at peak levels (120+ dB). And, once SPLs return to a safe level, the Music·PRO's output intelligently recovers in increments so as not to impact the fidelity of quieter moments.

So that's how they work. Now you're surely wondering if they work. And the answer is absolutely. Recently, I attended a Foo Fighters show at Washington, D.C.'s

Black Cat, a 700-person club (feel free to read all about it on the site of PSN's sister publication *Electronic Musician*). So, imagine a six-man band delivering arena rock-sized riffs in a venue that small and you understand the need for hearing protection.

Preceding the show—part of a series of previews leading up to the release of the band's *Sonic Highways* album—was a screening of the HBO docu-series chronicling the recording process. This two-part evening allowed me to test both the +6 dB and -15 dB modes of the Music·PRO. Set to boost before I entered the club,



BY TONY WARE

Tony Ware is a DC-based DJ, professional audio journalist, and regular contributor to NewBay Media titles.

the Music·PRO assured I had no problem speaking with the staff about the guest list, eavesdropping on some conversations at the bar or listening to the television episode being broadcast on six flat screens around the venue. Honestly, the transmission was so natural that I would almost forget the earplugs were in until a sharp burst of hollering and applause would create a flutter sensation.

Flipping to -15 dB reduction as Dave Grohl and company took the stage, I experienced the sensation of dampening as the crowd's fervor built up from 70 dB (triggering the circuit-

(continued on page 39)



## Emotiva

(continued from page 38)

nal. In practical use, I ran about 0 to +4 on the display when driving a variety of powered monitors for critical listening (within the DC-1's best operating range). With headphones/in-ears, I used lower output settings.

Sonically, I want a DAC and monitor feed path to be like wire with

level control so that any coloration is the sound signature of the monitors or headphones in use. That's what the DC-1 offers: neutrality.

Elegant and solid, the remote has an impressive heft. On/off, source selection, volume, mute and front panel brightness can be controlled from the remote. The Mute level control has three fixed levels: Silent, -20 dB below maximum output and -40 dB below max. With low volume levels, it is possible to actually have louder out-

put when hitting mute, particularly with the -20 preset (at first experience of the phenomenon, I confess that I went to the manual to figure out what was going on). I'd liked to have had options between -20 and -40.

Inputs are S/PDIF (IEC 60958) on independently selectable optical, RCA and BNC connections, AES3 on XLR, an analog input pair on unbalanced RCAs and USB. The USB input worked seamlessly with both Mac and Windows computers.

The Emotiva Pro Stealth DC-1 is full-featured and both sonically and aesthetically satisfying. It served me well as source selector, monitor reference converter and volume controller. Some aspects of the design are not fully in keeping with traditional pro philosophy, but the performance suits it for use as a pro quality monitor DAC, at an attractive price.

Emotiva Pro  
[emotiva.com/products/electronics/stealth-dc-1](http://emotiva.com/products/electronics/stealth-dc-1)

## Etymotic

(continued from page 38)

ry's threshold). And once the band kicked in full force, I had the opportunity to appreciate the next three hours of unflagging energy in relative comfort. The music came across with unaltered timbre, just without punishing effects.

So, is the Music:PRO the perfect ear fatigue solution? If your circumstances require transitioning between varying ambient levels while retaining clarity, the Music:PRO assures you won't miss anything.

Etymotic Research, Inc.  
[etymotic.com](http://etymotic.com)

## Apogee

(continued from page 34)

playback path from DAW to DAC. Your DAW outputs 32-bit data, Core Audio writes the data to memory, and Ensemble's DMA Engine reads it directly and transmits it to Ensemble's 32-bit DAC with minimal processing. While improvements of audio quality offered by the 32-bit signal path remain uncovered here, the gains in efficiency are undeniable.

The driver's high efficiency means that, given a specific session with its tracks, plug-ins and virtual instruments, you can set the DAW software buffer to a lower setting without encountering drop-outs. The driver's low latency means that at a specific buffer setting, the throughput latency from mic to headphones will be lower than ever. Team these advantages with Ensemble's Creative User Interface and you have an audio interface that seamlessly integrates into your working environment and encourages your creativity.

Roger Robindoré is Apogee's Director of Product Evangelism.

Apogee Electronics  
[apogeedigital.com](http://apogeedigital.com)

See us at  
NAMM Hall A, Booth 6108

**RIEDEL**



# THE STAGE BOX FOR EACH FORMAT

## MEDIORNET COMPACT

Real-time media networks for Video, Audio, Data and Communications

- Synchronized 50G Real-Time Network for the Price of a Multiplexing Point-to-Point solution.
- Flexible signal routing for 3G/HD/SD-SDI Video, Audio, Data & Intercom incl. Point-to-Multi-Point.
- Easy and intuitive installation of redundant systems.
- Fully compatible with modular Mediornet Systems.
- Ideal for events of any type and size such as fairs, sports events or festivals



## PMC TWOTWO SUB2 SUBWOOFER

PMC is introducing its twotwo sub2 to complement the twotwo range of studio nearfield loudspeakers. The twotwo sub2 subwoofer is described by PMS as providing greater headroom and dynamics than its smaller sibling, the twotwo sub1, and featuring low-distortion, PMC's proprietary ATL bass-loading technology, Class-D amplification and DSP-based filtering and bass management.



The built-in amplifier is specified at 400 W of power for the LF driver, a flat piston design composed of a carbon-fiber/Nomex sandwich, with an active frequency response from 20 Hz to 200 Hz. The sub2 can be deployed in a 2.1 configuration with twotwo series monitors for bass extension and headroom—providing midfield performance in smaller spaces, says PMC—or to reproduce the low-frequency effects (LFE) channel in a surround monitoring system.

The sub2 can accept digital signals at sample rates from 32 kHz to 192 kHz via AES3, and has stereo analog inputs. Through jacks allow the twotwo sub2 to serve as a system analog D/A convertor for downstream devices, or to feed along the digital inputs. A single parametric equalizer is provided to assist with in-room alignment, and the analog and digital outputs can be high-pass filtered to feed satellite speakers in a 2.1 configuration.

## SHURE 75TH ANNIVERSARY 5575LE UNIDYNE MIC

Recognizing the company's iconic Unidyne microphone, Shure Incorporated received the Milestone Award from the Institute of Electrical and Electronic Engineers (IEEE) in January 2014, putting Shure in the company of previously recognized inventors ranging from Benjamin Franklin and Nikola Tesla, and the Unidyne technology alongside Milestone Award achievements such as the Apollo Space program.



To mark this achievement, and to commemorate the 75th anniversary of the development and availability of the 55 Unidyne microphone, Shure is releasing the 5575LE Unidyne Limited Edition Cardioid Dynamic Microphone, available starting in December 2014. The serialized, limited edition 5575LE features the current Unidyne III cardioid element, the classic large outer grill, vintage badging, and zinc die-cast, with a silver-finish desk stand. Only 5575 of the 5575LEs will be made.

## STEINBERG CUBASE PRO 8, ARTIST 8

Marking the DAW's 25th anniversary, Steinberg has released Cubase Pro 8 and Cubase Artist 8, with newly built audio engines and new features. The new audio engines are intended in part to improve audio processing performance for multi-timbral and disk-streaming featured instrument tracks.

The Pro 8 edition's VCA faders feature emulates the control of channel gain with DC voltage, moving an entire fader group through a single master fader. From there, the Combine VCA fader automation feature combines the VCA fader automation curve with that of a controlled fader or fader groups. Another addition to Pro 8 automation tools is virgin territories, to omit redundant automation data between automated events. Among a litany of additional enhancements, both Pro and Artist versions now also offer render in-place capability, allowing users to bounce MIDI and audio parts.



## WAVES ONEKNOB PUMPER PLUG-IN

Waves Audio has announced the new Pumper plug-in, the newest addition to the Waves OneKnob Series of plug-ins, the Pumper. Designed for achieving an instant ducking effect, OneKnob Pumper simulates sidechain compression without actually routing a kick track to the sidechain input of a compressor. Waves OneKnob Pumper is Native only.

## firstlook

### SONNET OPTICAL THUNDERBOLT CABLES

Sonnet Technologies has introduced a new line of optical Thunderbolt cables designed to extend the useful range of Thunderbolt connectivity. Sonnet Optical Thunderbolt Cables are reportedly thin, lightweight, and durable, with performance equivalent to copper 20 Gbps Thunderbolt 2 and 10 Gbps Thunderbolt cables at distances of up to 60 meters. Extended Thunderbolt lengths can allow remote location of computers and/or external hard drives.

Available in 5.5-, 10-, 30-, and 60-meter lengths, the Sonnet Optical Thunderbolt Cables feature Optical Cable technology by Corning. The cables are hot-swappable, and each can carry both data and video.



## ISOACOUSTICS APERTA ISOLATION STANDS

The IsoAcoustics Aperta line of sculpted aluminum acoustic isolation stands was designed for medium-sized professional studio monitors, to provide what IsoAcoustics describes as an aesthetically pleasing means to enhance sound clarity and transparency.



The Aperta stands feature an integrated tilt adjustment for dialing-in a tilt angle, with fine gradation markings for precision left-right matching and repeatability. With an overall size of 6.1-inches wide x 7.5-inches deep, the stands accommodate mid-size studio speakers weighing up to 35 lbs. The Aperta footprint is the same size as the company's ISO-L8R155 iso stand, but with a 20 percent lower profile. Aperta stands are available in black or silver. They will also be available in kit form for OEM applications.

## MOTU MONITOR 8

MOTU's new Monitor 8—a monitor mixer, six-channel headphone amplifier and USB/AVB audio interface. Based on the design of MOTU's 1248, 8M and 16A AVB interfaces, Monitor 8 can serve as a primary audio interface and monitor mixer in the studio, for live performance monitoring or as a dedicated monitoring component of a MOTU AVB audio network system. Users can create multiple mixes from inputs including eight channels of balanced (TRS) analog, 16 channels (two banks) of ADAT optical, 32 channels of audio streamed from other MOTU interfaces on a connected AVB audio network (if present), and host software audio channels coming from the computer over USB or AVB Ethernet.



Monitor 8 can also function as a universally compatible AVB or USB 2.0 audio interface that is USB 3.0 and iOS compatible.

## METRIC HALO VST PLUG-INS

Metric Halo has announced VST-based versions of all Metric Halo plug-ins, supported on both Windows and Mac OS X. In addition to VST, the plug-ins also support Pro Tools AAX on Mac and Windows, and Audio Units on Mac. All of the plug-ins run in both 32-bit and 64-bit hosts on all platforms. Metric Halo plug-in licenses cover all versions.

The full Production Bundle includes eight plug-ins: ChannelStrip, TransientControl, Character, HaloVerb, Dirty Delay, Multiband Dynamics, Multiband Expander and the Precision DeEsser.

The plug-ins are also available individually. Users can choose computer-based licensing or optional iLok dongle-based licensing.

There's more information on all the products featured at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015).



## ▶ firstlook

### WORXAUDIO XL3I, XL3T LINE ARRAYS

WorxAudio Technologies has released its XL3i (installation—shown here) and XL3T (touring) line array systems. Added to the TrueLine Series, the new XL3i/XL3T modules can create a 38-degree vertical system with horizontal dispersion spec'd at 150 degrees.

Each of three models per type feature a large-format compression driver with a 3-inch diaphragm and 1.4-inch exit coupled to a stabilized proprietary FlatWave Former waveshaping device. The compression drivers are paired with dual 8-inch cone transducers coupled to the Acoustic Intergrading Module (A.I.M.), conceived to minimize comb filtering and offer a 55 Hz to 20 kHz frequency range.

XL3i and XL3T enclosures are made of multi-ply Baltic birch, covered by a multi-layered, two-part, polyurea ProTex finish, available in black or white. A 14-gauge, perforated, cloth-backed, powder-coated steel grill protects the front.

The system's included EASE Focus aiming software incorporates all critical parameters and provides a single-step "Auto Focus" process intended to provide the optimum suspension angles.

WorxAudio Technologies' PMD-2580 digital power amp, designed for the XL3i/XL3T systems, is rear cabinet-housed and it features 2,500 watts for the low frequencies and 800 watts for the highs, twin digital program processors, a mute switch for each output, detented volume control, transformer isolated I/O, and industry-standard AC PowerCon switchgear I/O.



### Allen & Heath Qu-You App

Allen & Heath has added wireless personal mixing to its QU series in the form of the new Qu-You app, which allows up to seven performers to control their monitor mixes using an iPhone, iPad or iPod Touch.

Qu-You has a 'Four Wheel Drive' view, presenting chunky thumbwheel level controls for four groups of sources, plus a master mute and output level control. Double-tapping on a group gives access to individual channel metering, send levels and stereo pan. Groups can be named for instant recognition and channels can be assigned to groups via checkboxes, allowing the user to create a custom mix.

Qu-You is available now from the Apple App Store and is compatible with Qu-16, Qu-24 and Qu-32 live, studio and installation mixers.



### RF VENUE COMBINE4, DISTRO4

Wireless audio manufacturer RF Venue has announced two new antenna distribution products: Combine4, a four channel transmitter combiner, and Distro4, which has been updated to include cascade ports.

Combine4 joins four IEM signals from any wireless monitor transmitter brand into a single RF output in an effort to improve signal quality and extend range via optional directional antennas.

RF Venue's updated Distro4 retains all the features of the previous generation antenna distributor, but adds a fifth cascade port to allow multiple Distro4s to cascade together for 16 or more receivers running through a single diversity antenna pair.

Both Combine4 and Distro4 include internal power supplies, DC jacks for elimination of wall-warts, and ship with all RF and power jumpers required for four channel operation and cascading. Both products are also available in

discounted packages with RF Venue's high performance directional antennas.



### DBX AFS2 FEEDBACK SUPPRESSION PROCESSOR

Harman's dbx has announced the AFS2 Advanced Feedback Suppression Processor, offering a one-button Wizard function to automate key setup parameters and walk the user through the configuration process. The AFS2 offers an LCD display and 24 LED meters per channel for setup and monitoring.

While 10- and 12-filter feedback-elimination processors are commonplace, the dedicated processor in the AFS2 provides up to 24 programmable filters per channel with filter Qs up to 1/80 of an octave.

### PRESONUS STUDIOLIVE AI 96 KHZ SUPPORT

PreSonus has introduced HD mode for its StudioLive AI-series mixer line, which will allow them to record and play back audio streams at sample rates up to 96 kHz through the onboard FireWire 800 interfaces.

HD mode limits cascading and output processing while retaining bus mixing, Fat Channel processing on every input channel, and one reverb and one delay processor. Capture and Studio One Artist software for Mac and Windows require no updates.

Free update downloads are available for StudioLive AI-series mixer owners.

### HK AUDIO LUCAS NANO 600 PORTABLE PA

HK Audio's Lucas Nano 600 relies on a pair of small, up to 123 dB SPL capable, satellite speakers for the high and midrange frequencies. A dedicated subwoofer powers the satellites and includes built-in frequency shaping controls and a mixer.

The Lucas Nano 600 can be used as a "space-saving" mono or stereo system by adding the desired speaker pole set. In addition, two Lucas Nano 600s can be paired for increased system output, and mixers on each sub duplex to double mixer inputs.



### RAD UV-1G WIRELESS INTERCOM

Radio Active Designs' (RAD) UV-1G wireless intercom system, featuring Enhanced Narrow Band technology, is now shipping.

Enhanced Narrow Band technology is a form of Amplitude Modulation (AM) that reportedly reduces a system RF channel's occupied bandwidth to 25 kHz with the audio characteristics of a traditional FM system.

The UV-1G also implements a host of digital processing technologies intended to optimize sound quality and intelligibility. UV-1G belt packs include two programmable buttons with a number of assignable functions. The headset connector on both the belt packs and the base station is field changeable between 5-pin female and 4-pin male.

The belt packs also implement internal antennas. In addition, they include a 1/8-inch stereo audio input so that monitor technicians may connect IEM receivers, or any analog audio source, directly to their belt packs. With a single band split, each belt pack in use works with every base station used on an event.

### GALAXY TRAVELER PA RF UPDATES

Galaxy Audio has announced the availability of a new Dual Channel Receiver for its Traveler Portable PA Systems.

The receiver, TV-DREC, will allow the user to use two wireless microphones with one receiver card. The TV-DREC also makes it possible to have up to four UHF wireless microphones operating at once with a Traveler Portable PA System. Each receiver features two volume controls (one for each receiver) and 96 selectable frequencies.



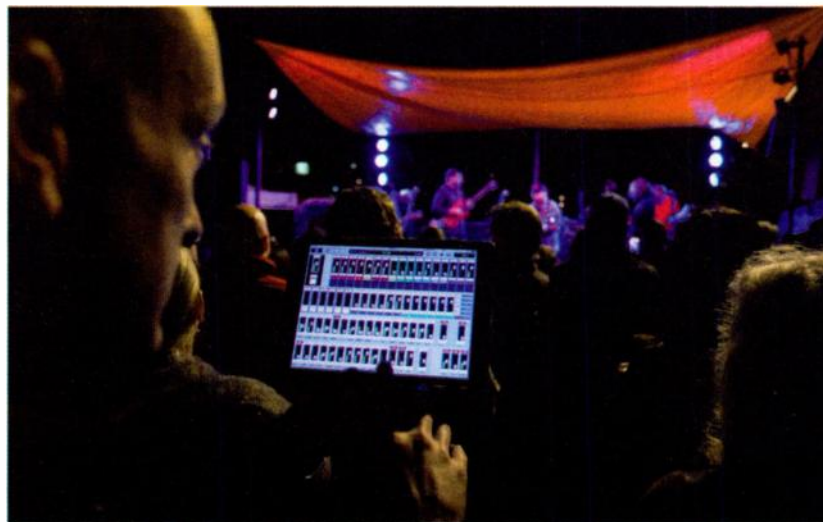


## Mixing Macefield Music Fest

BALLARD, WA—The annual Macefield Music Festival, held in the Seattle suburb of Ballard, prides itself on its independent spirit, presenting more than 60 artists at a variety of local venues over two days. Mixing such artists as power pop stalwarts The Posies, The Maldives, Nightrain and The Sonics at the main stage were sound engineers Greg “Greedy” Williamson on monitors and Chris Mael at front of house. What made this gig different was the fact that there was no actual “front of house” mix position.

Instead, both were mixing on Mackie’s new DL32R digital mixer. Opting to mix via wireless control on iPads using Mackie’s Master Fader app, the two engineers instead moved around the venue as necessary, ensuring that all areas of the audience could hear everything. The festival marked the DL32R’s public debut, even if most people could only see the iPads in use instead; the mixer served up 32 channels of I/O and DSP, all stored in a three rack space stage box that resided at stageside, where the monitor desk would typically have been.

“I would be standing in the middle of the audience mixing and have the person next to me say, ‘Are you



Engineer Chris Mael tackled the house mix of the Macefield Music Festival on an iPad running Mackie’s Master Fader app, connecting wirelessly to the new DL32R mixer.

actually mixing this show from right here on your iPad? That is freaking cool!’ It happened with every band,” said Mael, a veteran live sound engineer who has manned the faders for numerous Grammy Award-winning artists. “But it’s also incredibly useful. I was able to walk back to the delay stacks and adjust the sound, listen from in front of the main stacks, then off to the side. Anywhere I wanted to go, I had the entire mixing console in my hand and could make adjustments instantly. No worries about the

mix position being in a bad spot.”

Greg Williamson, whose touring credits include Foo Fighters, had a similar experience in monitor world. “I could walk right up on stage while the band was playing, hear their monitors, and make the adjustments,” he noted. “That’s exactly what I did with the drummer for the Posies. I just came out and sat with him and my iPad and said, ‘OK, what do you want?’ There’s no guesswork, no running back and forth.”

(continued on page 46)

## Storming Bastille

BY CLIVE YOUNG

NEW YORK, NY—It’s been quite a year for Bastille. The UK pop band broke through with the hit “Pompeii” and saw it become the US number-one rock song of 2014, according to *Billboard*, pushing the group’s debut album, *Bad Blood*, to platinum status and ultimately helping Bastille land a Grammy nomination for Best New Artist. Seizing the moment, the band did multiple tour legs in North America, quickly building up to a fall tour that carried audio support from Livonia, MI-based Thunder Audio.

Like any “overnight” success, the band’s sudden high profile is actually the result of years of hard work, as longtime FOH engineer, Paul “Coop” Cooper, confirmed with a laugh: “We don’t have breaks; breaks are for other people.”

While the fall tour was the band’s biggest yet in the States, it also marked a major change for Coop



Bastille broke through in the US this past year, which led to a headlining tour carrying a sizable L-Acoustics K1 system supplied by Thunder Audio.

in the form of a new console, as he moved to a Midas Pro6 digital live desk outfitted with a RPM Dynamics RPM-TB72R—a stand-alone, 72-channel AES50 I/O unit that allows Midas digital console users to integrate Midas Digital I/O with a Thunderbolt-equipped computer.

“Thanks to this genius little box that Jim Roese invented, I can multi-track 72 channels of every show and

also can use all the Waves plug-ins I used on my last desk,” said Coop, recently named a Waves Artist. “Jim sells a 48-channel unit which is his standard box, but I had him make me a 72-channel rack-mount unit. It has three AES50 inputs on the back which allow 72 channels in and out simultaneously, letting me use plug-ins, compression on channels and

(continued on page 47)

## briefs

### Pearl Jam Rides The Waves

NEW YORK, NY—Pearl Jam spent October rolling through the midwest on a three-week, 12-date tour. Along for the journey was longtime FOH engineer Greg Nelson, who mixed the band on a DiGiCo SD5 desk, using Waves (waveslive.com) MultiRack SoundGrid, plug-ins and Server One each night.

### Event Adds Nexo, Yamaha

CINCINNATI, OH—Production company Event Enterprises recently added a dozen STM M28 speakers to augment its existing Nexo (yamahaca.com) box count, which has grown to 80. Event likewise upped its Yamaha DSR speaker inventory to 24, and added a Yamaha QL5 digital audio console for the company’s rental inventory and in-house engineers to utilize in the field.

### Global Harvest Reaps GC Pro

CARROLLTON, TX—Guitar Center Professional (GCPro.com) recently helped Global Harvest Church with the installation of a new sound system based around a DB Technologies DVA T4 powered line array, two DB DVA-S20DP Dual-18 powered subwoofers, a Symetrix SymNet Open Architecture Dante Scalable DSP processor, and Sennheiser handheld wireless mics and in-ear monitors.

### Disney Gets Musical with Masque

LA JOLLA, CA—Disney’s *Hunchback of Notre Dame* musical debuted at the La Jolla Playhouse with sound design by Gareth Owen, who worked with Masque Sound (masquesound.com) to create an audio system built around Avid Venue consoles; a d&b audiotechnik T-Series PA; DPA, Shure and Audix mics; and Sennheiser wireless.

### Sleep Country Gets Rational

PORTLAND, OR—Sleep Country Amphitheater, an 18,000-seat live music venue outside Portland, OR recently replaced its SPL monitoring system with SG Audio’s 10EaZy Class 1 System, supplied by the US distributor, Rational Acoustics (rationalacoustics.com), in the nick of time before a Mötley Crüe concert.



# PARASOURCE



## Maximum Impact

Our Parasource Series active loudspeakers and subwoofers is the culmination of Yorkville Sound's fifty plus years of speaker cabinet design and innovation. Built for the most demanding live sound applications, Parasource Series innovative high headroom power supply and Class-D amplifier design delivers increased overall loudness from the most compact cabinet design possible. Highly precise multiband limiting ensures a completely transparent listening experience, even at the highest volumes these cabinets can produce.

The innovative Power Supply and Amplifier Design Delivers Maximum Headroom for Increased Loudness and Extended Low Frequency Response.

- **Multiband Limiting**
- **High Efficiency Lightweight Class-D Power Modules**
- **Passive Cooling Scheme (No Loud Fans Required)**
- **Designed for Front-of-House or Monitor Applications**
- **Integrated Two Channel Mini Mixer**
- **XLR Microphone, 1/4-inch and RCA Line Inputs**
- **Made in Canada**

PS15P

PS18S  
1200 watts

PS15S  
1000 watts

PS12S  
900 watts

PS15P  
1400 watts

PS12P  
1400 watts

PS10P  
800 watts

Yorkville Sound USA  
4625 Witmer Industrial Estate  
Niagara Falls, NY USA 14305  
Phone (716) 297-2920



Yorkville Sound  
550 Granite Court Pickering, Ontario  
Canada L1W 3Y8  
Phone (905) 837-8481

[yorkville.com](http://yorkville.com)



## Hot-Blooded Hits



When Foreigner played The Borgata in Atlantic City, NJ, the band's show was heard through Bose RoomMatch Progressive Directivity Arrays.

BY CLIVE YOUNG

ATLANTIC CITY, NJ—Don't let the name fool you: Foreigner is at home everywhere. A hard-touring band since starting in the mid-1970s, the veteran rock act still performs all over the world, led by guitarist/songwriter Mick Jones as it delivers an unrelenting barrage of international hits like—to name only a few—"Juke Box Hero," "Urgent," "Head Games," "Cold As Ice," "Hot Blooded" and "Waiting For A Girl Like You."

That's just some of the band's backlog of big singles, however; as Foreigner's FOH engineer, Brian Simon, points out, "Mick's written so many songs, you could do a five-hour show and not repeat anything. As it is, we play different set lists in different countries, because in Germany, for instance, they love certain songs that Americans don't even know about. That makes it fun to go to South America and other places, because you get to mix some songs that you haven't heard in a few months."

Regardless of the hits being played, consistency is the name of the game, not only in terms of performance but also the audio quality provided for both the audience and band itself. The group travels light, picking up local production at every stop using rider-requested gear for both Simon's FOH position and monitor engineer Lorenzo Banda at stageside. While the engineers have favorite gear they know well, they're not above trying something new—as was the case during a recent two-night stand at the 1,000-seat Music Box theater inside the Borgata Hotel Casino and Spa in Atlantic City, NJ,

where Foreigner was heard through Bose RoomMatch Progressive Directivity Arrays.

On-hand to ensure that everything went smoothly was Rob Kosman, events and applications specialist from the Professional Systems Division of Bose. "The coverage that we're getting is very consistent, all the way front-to-back as well as side-

by-side," he said, walking around the venue. "We were listening to it yesterday and the guys described it as sounding the same in every position throughout the room—which is great; that's what the system was designed to do."

The uniformity, Kosman said, was due to how the system had been

applied to the venue: "With RoomMatch, we have array modules in a variety of vertical and horizontal angles, because ultimately the goal is to have the narrowest coverage for the farthest throw—so that it hits exactly where you want it—and the widest coverage for the near throw. Since you're essentially balancing the sound pressure level by varying the

coverage, you end up with a consistent level across the room."

As a result, the stage left and right hangs of six modules each sported RM7005s on top—throwing 70x5 degrees—followed by RM9005s (90x5 degrees), three RM12010s (120x10 degrees) and a RM12020 (120x20 degrees); together, they provid-

ed 60 degrees of vertical coverage. Rounding out the system were three RMS218 subs per side and a quartet of RMU208 front-fills on the stage lip; everything was run off Bose PowerMatch amplifiers employing Dante networking to pass audio between stage left and right amplifier locations, where four PM8500s powered each array.

While it was Foreigner's first time using RoomMatch arrays, the band had certainly played "Feels Like The First Time" through Bose products before, having long used L1 Model II portable systems with B2 bass modules and T1 ToneMatch engines for intimate acoustic VIP performances.

If the PA was new to the band, however, there was plenty of familiar gear on-hand, too, such as the Avid Venue Profile at the FOH position. "I find it to be really user-friendly," said Simon. "It does all the things I want to do and the footprint can't beat; as long as you have the right plug-in package, you can play anything from clubs to stadiums and it does a great job."

Plug-ins present are usually from Waves, he reported: "I use the C6 Multiband Compressor, and that alone saves the day—I use it on my main left-right bus, my vocals, my background vocal groups. Then I have the Renaissance Axx plug-in for my acoustic guitars to make them pop out. Waves Doubler for my vocals—I use a single one for Kelly [Hansen, lead vocals] and I use the four voices for background vocals. There's the API EQ on a few things, and the L2 Ultra-maximizer, which keeps the mix in the right dynamic range. A lot of places in Europe, we have to stay at a 98 dB limit, so I use it to brick-wall myself, but it doesn't pump or breathe, so it's really seamless. I love it."

Helping meet those SPL limits, the seven-man band has a relatively quiet stage, despite the array of guitars on-

"You have to be a fan of what you're mixing—I don't think you give an audience what they want or do a band justice otherwise, because you're not paying attention to the nuances, the little things that people expect to hear. If you don't give that to them, then you're letting the audience down."

Brian Simon, FOH engineer, Foreigner

hand. "Our guitar cabinets are in Randall isolation boxes," said Simon. "I've got three guitar players all playing the same type of material on three Les Pauls, so to get separation, I use different combinations of mics. On Mr. Jones, I use a 56 on one of his cabinets and a 57 on another, while with Bruce Watson, our other guitar player, I use



two 57s. Then on Tom Gimbel, I use a Heil and a Neumann.”

Capturing the drum kit is a job largely accomplished with a selection of Shure mics, with a Beta 91A in the kick, SM57s above and below the snare, and SM81s and KSM32s on various cymbals, as well as a Audix D2 and D4 on high and low toms and a Sennheiser e 602 outside the kick. Vocals are captured with Earthworks SR40V condenser mics and capsules that the band helped develop over the course of a year’s worth of roadwork.

In all, Simon works with 56 inputs, striving each night to recreate the intricate mixes found on albums like the Mutt Lange-produced *4* while still honoring the live performance onstage. “I do my best to keep the integrity of the songs as people know them, because that’s why they come to see the band,” he said. “I focus on getting that full-range sound, an overall mix. Some of the older stuff from the Seventies isn’t as dynamic as something from the mid-Eighties. If you mix something like ‘Starrider’ off the first record, it can’t sound as big and bold as ‘I Want To Know What Love Is.’

Luckily, the set list has a great flow, so I don’t have to go from 1976 to 1986 and then back again; it has a natural progression and dynamic that makes it pretty smooth as far as the audience is concerned.”

And concern for the audience is key to Simon’s approach to mixing, not just for Foreigner but every act he’s mixed over the years—a list that includes Counting Crows, Night Ranger and Little River Band. “The biggest thing is you have to be a fan

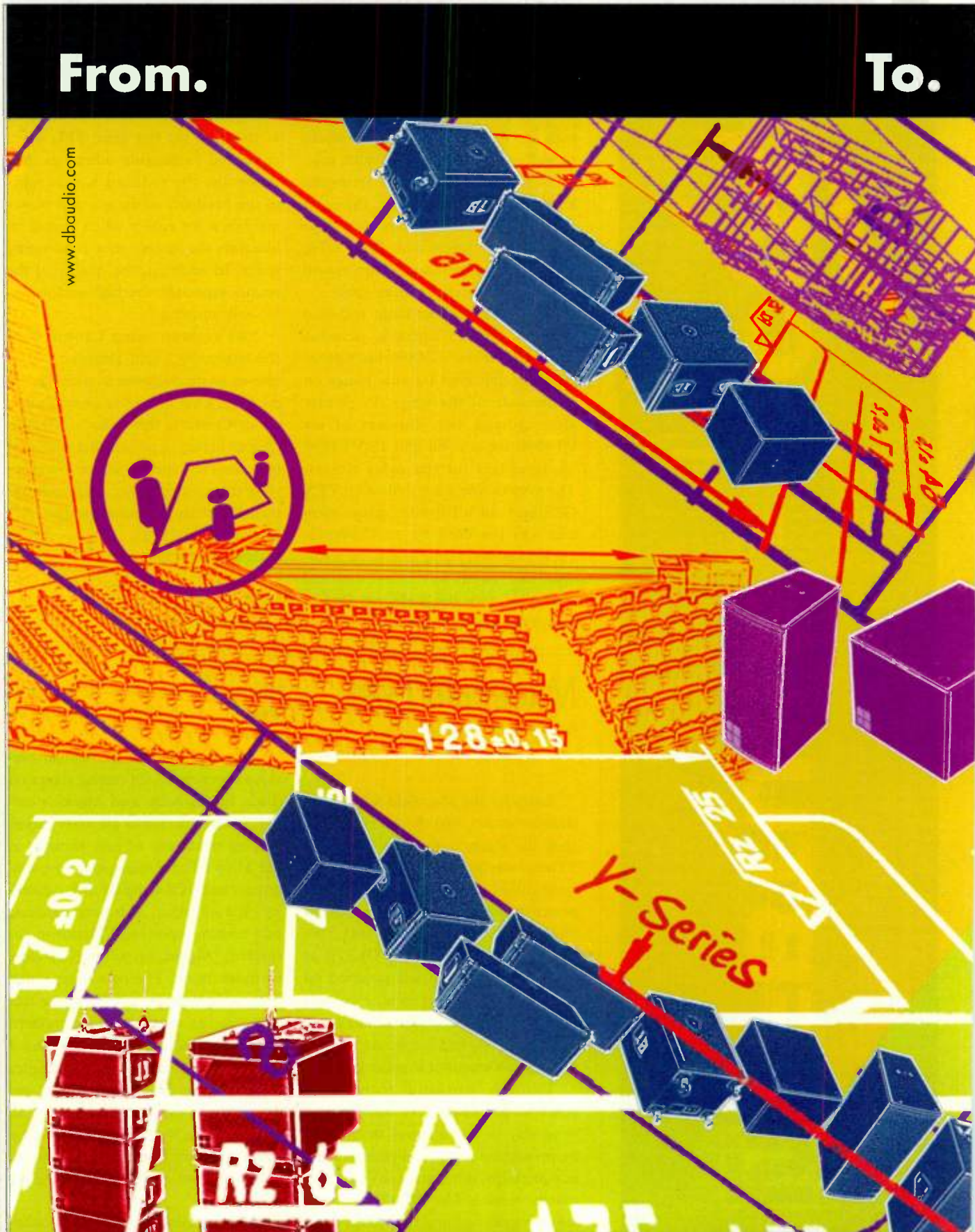
of what you’re mixing,” he shared. “I don’t think you give an audience what they want or do a band justice otherwise, because you’re not paying attention to the nuances, the little things that people expect to hear. If you don’t give that to them, then you’re letting the audience down. I truly believe that I’m the advocate for the audience—FOH guys are there to ask them to buy a ticket next year.”  
Bose Professional Systems Division  
pro.bose.com



THERE’S MORE ▶ Catch fan-shot video of Foreigner rolling through “Juke Box Hero” at The Borgata at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015).

From.

To.



VITALstats

Foreigner

Music Box, Borgata Hotel  
Casino & Spa (Atlantic City, NJ)

FOH Engineer:

Brian Simon

Monitor Engineer:

Lorenzo Banda

FOH Console:

Avid Venue Profile

Monitor Console:

Yamaha

House Speakers:

Bose RoomMatch RM7005,  
RM9005, RM12010, RM12020,  
RMS218, RMU208

Personal Monitors:

JH Audio

House Amplifiers:

Bose PowerMatch PM8500

FOH Equipment/Plug-

Ins:

Waves C6 Multiband Compressor,  
Renaissance Axx, Doubler, API EQ,  
L2 Ultramaximizer

Microphones:

Heil; Neumann; Sennheiser e  
602, e 604; Earthworks SR40V  
condenser mics and wireless cap-  
sules; Shure SM57, SM56, Beta  
91A, SM81, KSM32; Audix D2, D4

Spanning from performing arts to conferences, religious events and live shows, a Series which can do everything with technological sophistication: with warm and transparent full range qualities and well behaved directivity control, even at high sound pressure levels. From. To. In the very best sense: the d&b Y-Series.





## Firehouse Fields NFL Kickoff

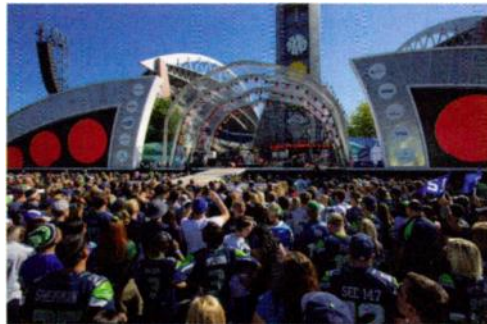
SEATTLE, WA—The 2014 NFL Kick-off Event, featuring performances by Pharrell Williams and Soundgarden, was held this year outside Seattle's iconic CenturyLink Field, with New York-based Firehouse Productions providing an audio system featuring Harman's JBL VTX line arrays and Crown I-Tech HD Amplifiers.

Having designed and managed

sound reinforcement systems for various major rock tours and high-profile live broadcasts, Firehouse Productions knew how to handle the event. "This was a good, straightforward show for us because we knew we were only going to be dealing with just two performers," said Mark Dittmar, VP of Design and Engineering, Firehouse Productions.

Taking place just outside the CenturyLink Field stadium, Dittmar and his team were challenged with city restrictions on decibel levels, as well as the customary Seattle rain. To stay within the city's stringent limitations on sound levels, the team used JBL VTX line arrays as well as several delay towers with JBL VerTec loudspeakers to manage the sound coverage within the outdoor space.

The stage's main hang featured 14 JBL VTX V25 line array elements while 12 VerTec VT4889 loudspeakers were deployed for side hangs on either side of the stage. Firehouse also utilized two clusters of six VT4889 for rear-fill and 12 VT4889 loudspeakers for the delay towers. The system also consisted of 16 VTX G28 and 20 VT4880A subwoofers and was powered by 90 Crown I-Tech 12000HD amplifiers. In addition, the system was monitored and controlled with JBL's HiQnet Performance Manager software.



Firehouse Productions provided a Crown-powered JBL VTX system.

"The VTX line arrays are very capable and deliver a ton of power," said Dittmar. "I don't have to hang as many to get the same SPL when compared to hanging other rigs. Additionally, the reduced weight adds to the flexibility of design, and makes my job a lot easier when trying to integrate the system in a challenging space. In addition, the quality of the sound, especially the high-end, is absolutely amazing."

"We've been using Crown since the beginning," said Dittmar. "They give us so much power in such a small package. One of our favorite aspects about Crown is the ability to build a custom library of presets that enable us to control any speaker in our inventory with the proper power and optimize their EQ, delay and other parameters."

Firehouse Productions  
firehouseproductions.com

Harman  
harman.com

## Macefield Fest

(continued from page 42)

Setup for the Macefield festival was straightforward, said the engineers, despite the absence of traditional desks. "There was no physical console, no racks full of effects, and no audio and power snakes to run out to the front of house position," Williamson said. "We just ran the inputs to the DL32R at the side of the stage and powered up the WiFi router. From there, it was just iPads. Each band would soundcheck, headliner first, and we would save all settings as a snapshot to recall later."

Though working from iPad screens, the engineers nonetheless were able to use features that would be present on a physical console such as subgroups, mute groups, VCAs and matrix busses. The DL32R also allowed wireless control over multi-track direct-to-disk recording, and an option to record to Mac or PC. While it wasn't used, the option was available that musicians with iOS devices could

have had their own, individual mix stations as the DL32R can take on multiple controllers.

The engineers themselves had previous experience with mixing shows on iPads, having each used Mackie's earlier, iPad-controllable DL1608 mixer. Having made use of new features in the Master Fader application like subgroups and VCAs, digital trim capability on each input, and more patching and routing options, Williamson remarked, "Moving up to the 32, it does so much more. The new Onyx+ mic pres are incredible, and I love the fact that you can switch between modern and vintage EQs. This is the first time I actually feel like the band and audience are getting the full range of what I can do, because I can actually go out there and listen to it with full control of every mixer function from input to output. It honestly has changed everything for me."

After handing front-of-house wandering around the house, Mael likewise came away from the festival upbeat about the unusual approach to mixing: "The DL32R gave me full

## Kylie Gets On The Mic

OLD LYME, CT—Pop artist Kylie Minogue spent her autumn spanning Europe on her Kiss Me Once tour, accompanied by sound company Eighth Day Sound, which supplied a microphone package featuring Sennheiser SKM 5200 mics with MD 5235 capsules and EM 3732-II receivers, with monitoring via Sennheiser SR 2050 IEM transmitters and EK 2000 IEM belt packs.

"The SKM 5200/MD 5235 combination really suits this show, as Kylie spends a lot of time out in front of the PA system on the B stage," said Kevin Pruce, Kylie's Front-of-House engineer. "Other combinations gave me less headroom, while the size and weight of the microphone are also very important."

"Sennheiser—what can I say? We have a working relationship with them going back over 12 years and the support on the 2014 tour has been, as ever, exemplary. Kylie hasn't picked up another brand of microphone by choice since the first time we tried them—the weight, feel and audio quality are all perfect for her," said production manager Kevin Hoppood.

Sennheiser  
sennheiserusa.com

control of everything, but without making it so complicated that it got in my way. It's a whole new level of usability. We had no problems, and the sound quality was great. Being able to mix from anywhere with a system that's not much bigger than a briefcase—it's incredibly liberating."

Macefield Music Festival  
macefieldmusicfestival.com

Mackie  
Mackie.com



THERE'S MORE ▶ Catch fan-shot video of power pop stalwarts The Posies tearing through "Burn and Shine" at the Macefield Music Festival at [prosoundnetwork.com/an2015](http://prosoundnetwork.com/an2015)

**F.B.T.**  
LOUDSPEAKERS  
Designed, Engineered and Manufactured in Italy

**F.B.T.U.S.A.**

**ISI**

Proudly distributed by:  
ITALIAN SPEAKER IMPORTS  
914.219.4180  
info@italianspeakers.us



# Bastille

(continued from page 42)

stuff off my laptop with minimal latency, not noticeable at all. So I got Waves Mercury bundle and I bought the Abbey Road pack as well, and I needed SoundGrid for using it live. I tend to use H Delay, the IR1 Convolution Reverb, a C4 Compressor on bass, and I'll put the C6 Multiband Compressor and the H EQ on the main vocal. At the moment, I'm using a Pultec-sort of EQ on the snare, but I'm constantly adding and taking things away from that plug-in chain because I'm still playing with the desk. It's a nice-sounding show. Obviously with the Midas, I've hardly got anything on the drum kit at all—you just push the fader and go 'Ah, that's a kick drum!'"

Drums were a key part of the Bastille sound live, as parts of the show found various members of the band bashing custom Premier 20-by-8-inch gong drums at the front of the stage, including singer Dan Smith. Coop recalled, "He used to have a floor tom that he would hit intermittently to emphasize things; when we were playing tiny venues, it was an absolute pain in my [neck], but when we progressed to playing larger places, we miked it. Then the keyboard player wanted one and it became a case of one-upmanship. I came across the gong drum when I mixed a Christmas show for a band called Frost—I put an Electro-Voice RE20 in it, slightly 'verbed it and created this massive, ridiculous drum sound. You could sweep all the top end out of it, barely gate it and get this swelling sub hit. I make the mistake of mentioning it to the band and now we've got them. The easiest way to mic it is to put an LP mic claw with a Sennheiser e 902 positioned midway into the shell and that gives me enough options."

Due to tight patterns, the drum didn't spill much into the vocal mic—a Sennheiser e 965 capsule on a G3 wireless. The real drum kit itself was surrounded by a variety of e 904s, 902s, 914s, 905s and 901s. Background vocals were on e 935s, the guitar had a e 906 and the bass got an e 905. Meanwhile, Radial DIs could be found on a guitar channel, a Roland SPD-S sampling pad and more, and a Radial SW8 auto-switcher could be found used for redundancy in the keyboards. A pair of redundant JoeCo BlackBoxes were onhand for track playback as well.

Bringing the audio to the audience was Thunder's newly acquired L-Acoustics K1 system with the tour carrying 24 K1s for mains, 30 Kara

enclosures for sidehangs and a dozen SB28 subs. "I love L-Acoustics, always have," said Coop. "L-Acoustics has always been one of those things I've gone to by default—the top of my spec—because from the V-Dosc and dV-Dosc and even back to Arcs, you knew what you were going to get and it was going to work. The K1s are like that, too, and Thunder's techs are amazing with them; I'm walking into the same gig here every day, no matter the venue. I've worked very close

with Johnny [Winkler, systems engineer] and the owners of the company are wonderful; they're a great bunch of guys."

Since first being asked to tour with the band, Coop has seen Bastille rise from small London clubs to U.S. arenas and international festivals, case in point being a pair of massive New Zealand summer fests that the band played to ring in 2015. "I've been with them for three years and become really good friends with

them. When we first went on tour, I was the most toured person—and it went from going out with a couple of cars to now, where we're three buses and three trucks. Just seeing how they've grown and how they progress with every show, it's fantastic—really nice to see."

**Thunder Audio**  
Thunderaudioinc.com

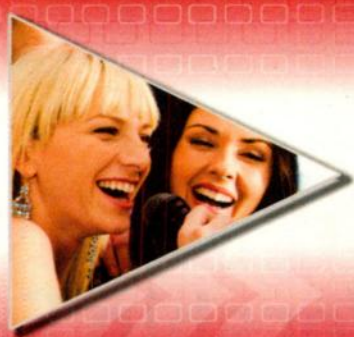
**L-Acoustics**  
l-acoustics.com

# RM SERIES

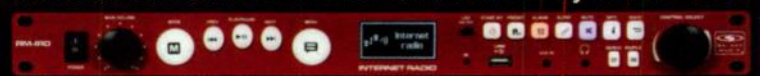
## RACK MOUNT CD Player

## RM-CDU

The RM-CDU is a CD, USB, & SD card player with built in Radio Data System (RDS) Tuner all in one rack space. The RM-CDU has FM/AM memory presets, Random, Repeat, Folder advance, Mute, and Program function. The RM-CDU features easy to locate and read illuminated function buttons on the front panel. This makes for easy control in a dark room or when in a rack.



Also check our New Internet Radio Player RM-IRD



800-369-7768  
www.galaxyaudio.com



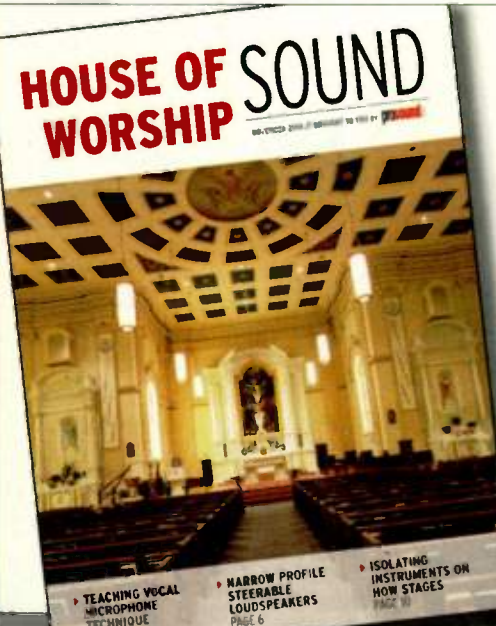


# centerSTAGE TOP 10 TOURS OF THE MONTH

| ACT / STATISTICS   | CREW   | EQUIPMENT   |
|--|--|---|
| <b>1 ENRIQUE IGLESIAS/ PITBULL   SOUND IMAGE</b>         | Jim Miller (cc); Brooks Jackson, Bryan Naumes, Shane Darrington (tech); Iglesias: Brad Divens (be); Eddie Caipo (me); Chris Sharp (mtech); Pitbull: Wil Madera (be); Rico Domirti (me); Chris Demonbreun (mtech) | HC: (2) Avid Venue Profile (96ch.); MC: Avid Venue Profile (Iglesias); DiGiCo SD-5 with SD racks (Pitbull); HS: L-Acoustics (28) K1, (12) K15B, (48) Kudo, (14) Kara, (24) SB-28; MS: Sound Image MA 1x15 (Iglesias); d&b audiotechnik M2, J8, J-Sub (Pitbull); IEM: Sennheiser; Shure; HA: L-Acoustics LA-8; MA: Crown I-Tech12000HD; d&b audiotechnik D12; HARDWIRED MICS: Sennheiser; Shure; Telefunken; Neumann; Beyer; Radial J48, JDI Duplex, ProD8; WIRELESS MICS: Sennheiser; Shure   |
| <b>2 FLEETWOOD MAC   CLAIR</b>                           | David Kob (be); Ed Dracoules, David Coyle (me); Donovan Friedman (cc/se); Steve Hupkowicz, Meg Tempio, Ricky Avilia, Dave Wiseman (techs)  | HC: (2) Avid Venue Profile; Yamaha PM5000; MC: Avid Venue D-Show with sidecar; DiGiCo SD10; HS: Clair i-5D, i-5, CO-8, CP-118 subs, FF2; MS: Clair 12am, R-4III, ML-18; Avid PQ System; IEM: Shure PSM 1000, PSM 600; HA: Crown; MA: Crown; HARDWIRED MICS: AKG C414 B, C 451EB; Audio-Technica AT4054, AE6100; Shure SM 57, Beta 98, Beta 56, Beta 91a, KSM313/NE, Beta 181, KSM137; Beyer M 201 TG; Milab DC-96B, BDM-01; Sennheiser MD 421-II, MKH-416, ME 2, e 935; Audix D4; Countryman DI; WIRELESS MICS: Shure UR Series; FOH EQUIPMENT: Summit TLA100; Yamaha SPX2000; Lexicon 480L; Eventide Eclipse; Bricasti M7; Aphex 612; TC Electronic D-Two; Lake LM 44, LM 26; Empirical Labs EL-8; Avalon AD2044; MONITOR EQUIPMENT: Crane Song Phoenix; TC Electronic VSS3; Rational Acoustics Smaart |
| <b>3 JASON ALDEAN   SPECTRUM SOUND</b>                   | Chris Stephens (he); Evan Richner (me); Joseph Lloyd (pm); Jeremy Seawell (se); Ryan Stotts (mtech); Bob Campbell (tech)   | HC: SSL Live; MC: SSL Live; HS: d&b audiotechnik (64) J8, (8) J12, (16) J Sub, (24) B2, (8) Q10; IEM: Shure PSM 1000; Ultimate Ears UE-7, UE-11; HA: d&b audiotechnik D12; HARDWIRED MICS: Audio-Technica AE6100, AE2500, ATM350, ATM450, AT4050, AT4081, AE3000, AT4047/SV; Shure SM57; WIRELESS MICS: Audio-Technica Artist Elite 5000 series wireless with T6100, T1000 transmitters; FOH EQUIPMENT: Lake LM44; ATI DDA 212XLR; Waves Platinum Bundle; Crane Song Phoenix; SPL Transient Designer; Massey De:Esser, vt3; MONITOR EQUIPMENT: Massey L2007, vt3, De:Esser  |
| <b>4 PAUL MCCARTNEY   CLAIR</b>                          | Paul "Pab" Boothroyd (be); John "Grubby" Callis (me); Chris Nichols (se); Paul "Swanny" Swan (mse); Sean Baca, Nicole Wakefield, Brandon Allison (techs)   | HC: Avid Venue Profile; Midas Pro9; MC: (2) Midas Heritage 3000; HS: Clair i-5D, i-5, i-5b, BT-218 subs, i-3, i-dl; MS: Clair SRM, ML-18, R-4 III; IEM: Shure PSM 600; HA: Lab.gruppen; MA: Crown; MICS: Shure UR series with Beta58a capsule; Radial J48; FOH EQUIPMENT: dbx 160SL; TC Electronic 6000; MONITOR EQUIPMENT: XTA GQ600b; Drawmer DS201; Yamaha SPX990  |
| <b>5 ERIC CHURCH   CLAIR</b>                             | Billy Moore (be); Marc Earp (me); Jared Lawrie (se); Rachael Aull (m tech); Bryce Beauregard, Matthew Patterson (tech)   | HC: (2) Midas Heritage 3000; MC: Avid Venue Profile, Venue SC48; HS: Clair i-5, i-3, CO-8, CP-218; IEM: Sennheiser G3; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Shure; Sennheiser; Royer; WIRELESS MICS: Shure; FOH EQUIPMENT: Manley VoxBox; Avalon VT-747SP, VT-737SP; Summit DCL-200; Tube Tech LCA 2B; Drawmer DS201; dbx 903; Yamaha SPX990; TC Electronic D-Two; Eventide H3500; MONITOR PLUG-INS: Waves Live Bundle; Crane Song Phoenix   |
| <b>6 PHISH   CLAIR</b>                                   | Garry Brown (be); Mark "Bruno" Bradley (me); Rich Schoenadel (s tech); Tim Shaner (m tech); Jamie Nelson, Tom Ford, Jon Yochem (techs)   | HC: Midas XL8; MC: Yamaha PM5D, DSP5D; HS: Clair i-5, i-5b, CO-8, i-3, BT-218; MS: Clair 12am, MD-18 sub; HA: Clair StakRaks (Lab. gruppen PLM 20000Q); MA: Lab.gruppen; HARDWIRED MICS: Royer; Telefunken; Neumann; Sennheiser; Shure; AKG; Yamaha; FOH EQUIPMENT: Smart Research C-2; Empirical Labs EL8, Fatso; Manley Variable-Mu, De-Esser, ELOP; Summit DCL-200; Bricasti M7; Crane Song HEDD 192; Klark-Teknik DN360   |
| <b>7 TOM PETTY &amp; THE HEARTBREAKERS   SOUND IMAGE</b> | Robert Scovill (he/be); Greg Looper (me); Marcus Douglas (cc); Andrew Dowling (se); Chuck Smith (mae); Chris Houston (tech)  | HC: Avid Venue 96 channel; MC: Avid Venue 96 channel; HS: (54) EAW Anya; (10) L-Acoustics dV-Subs; (10) L-Acoustics Kara (frontfills); MS: Sound Image PD 1x12; IEM: Shure PSM 900; HA: L-Acoustics LA8; MA: Crown I-T12000 HD; HARDWIRED MICS: Shure 91A, Beta 52, SM57, KSM137; Sennheiser e 904; Audix SCX25; Rode NT4; Earthworks DP30/C, P-Bar; AKG C-414; Telefunken M80; Neumann TLM 103, KM 184; Electro-Voice N/D868; Radial J48 DI; Countryman DI; FOH PLUG-INS: Softube Trident A range; Sonnox Oxford Reverb, Oxford Inflator; Brainworx Dynamic Equalizer; Bomb Factory Pultec EQP-1A; Crane Song Phoenix; Drawmer Dynamics; MONITOR PLUG-INS: Crane Song Phoenix; Waves CLA-76, C6  |
| <b>8 PEARL JAM   RAT SOUND</b>                           | Greg Nelson (he); Karrie Keyes (me); Tom Worley (cc/se); Andrew Gilchrist (FOH tech); Peter Baigent, Tommy Carisco (m tech); Taka Nakai, Mike Gazdziak (sys tech); Liz Burns (pm); Mark Smith (tm)               | HC: DiGiCo SD5 with Waves DiGiGrid; MC: Midas Pro9; HS: L-Acoustics K1, Arcs II, Kara, 108P, SB28, K1-5B; MS: EAW MicroWedge 12 II, MicroSub 15; Rat S wedges, Rat Trap sidefill; HA: L-Acoustics LA-Rak; MA: Lab.gruppen; MICS: Audix OM7; AKG 414, 460; Audio-Technica AT4050; Beyer Opus 87; DPA 4061; Heil PR 40; Neumann BCM 705; Sennheiser MD 421, e 609; Shure Beta 52, Beta 56, Beta 57, Beta 91, SM57, SM58S, VP88; Radial J48 DI; FOH EQUIPMENT: Klark-Teknik DN422M, Lexicon PCM80, Lexicon PCM92, Symetrix 501; Lake LM 44, DLP; Avid HD MADI; MONITOR EQUIPMENT: Lexicon PCM60; XTA DP-224  |
| <b>9 MÖTLEY CRÜE   CLAIR</b>                             | Adam Stuart (he); Don Baker (bme); Scott Diamond (me-Neil); Phil Kriz (cc/se); Dustin Ponscheck (ae); Bobby Taylor, Scott Megrath (tech)   | HC: DiGiCo SD7; MC: DiGiCo SD7, SD10; HS: Clair i-5, CP-218, i-3; MS: Clair CM-22, SRM, CP-218, BT-218, BT-118; IEM: Shure PSM 1000; HA: Lab.gruppen; MA: Lab.gruppen; HARDWIRED MICS: Beyer M88 TG; Shure SM57, SM58, Beta181, Beta91a, Beta52, Beta91, SM81; Sennheiser e 815, e 904, MKH-416; AKG C-414; Audio-Technica AE3000, AE5400; Countryman Direct Box; Radial DI; WIRELESS MICS: Shure UR4D handhelds and headset body pack  |
| <b>10 BLAKE SHELTON   CLAIR</b>                          | Jeff "Pig" Parsons (he); Brad Baisley (me); Tim Holder (cc/se); Jason Bennett (mse); James Higgins (pa/stage tech); Brian Leedham (pm)<br>HC: Avid Venue Profile (96 Ch.); MC: Avid                              | Venue Profile (96 Ch.); HS: Clair i-5, i-5b, BT-218, i-DL, Clair Cohension-8 micro array; MS: Clair Cohesion CM-22, 12AM; IEM: Sennheiser G3; JH Audio JH13, JH16; Aurasonics; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Sennheiser e901, e902, e904, e905, e906, e614, e602, e914, e935, 421; Radial J48, JDI; WIRELESS MICS: Sennheiser em2050 receivers with SKM2000, e935 capsule; FOH EQUIPMENT: Avid VenuePack Pro 3; Rane Serrato; MONITOR EQUIPMENT: Avid VenuePack Pro 3; Crane Song Phoenix; McDSP MC2000; Flux Epure II; Radial 500 Series PowerStrip, PowerPre, Q4, SW8   |

**LEGEND:** (he) house engineer. (ahe) ass't house engineer. (be) band's house engineer. (me) monitor engineer. (ame) ass't monitoring engineer. (bme) band's monitor engineer. (se) systems engineer. (ae) ass't engineer. (tech) technician. (cc) crew chief. HC: house console. MC: monitor console. HS: house speakers. PMS: personal monitor systems. MS: monitor speakers. HA: house amplifiers. MA: monitor amplifiers.

Top 10 grossing tours according to *Billboard*. Some tours did not report grosses for all shows; rankings may be affected as a result. Equipment and crew information are provided by the respective sound reinforcement companies.



## Read the Digital Edition: House of Worship Sound

Check it out today by visiting [ProSoundNetwork.com](http://ProSoundNetwork.com)

Investment in technology by Houses of Worship has experienced remarkable growth, and purchasing has stayed strong even in a weak economy. HOW Sound focuses on the various applications of manufacturers' existing product lines and HOW specific products with content designed to aid HOWs in their selection and implementation of professional audio technology, gear and software.

FROM THE EDITORS OF PRO SOUND NEWS



**WHEN QUALITY,  
RELIABILITY AND  
PERFORMANCE  
COUNT**



**SINCE 1981**

**Applied**  
Truss and Electronics

**APPLIEDNN.COM**

**800-883-0008  
757-591-9371**

**MOTORS  
& MOTOR  
CONTROL**



**LINE  
ARRAY  
TOWERS  
18' - 35'**



**POWER  
DISTRIBUTION**



**CRANK  
LIFTS**



**ROOF &  
STAGING  
SYSTEMS**





## Perennials

(continued from page 1)

engineer and owner of Nashville's Blackbird Studios: "It's interesting... the finest guitars, when it comes to electric guitars, are from the '50s and '60s. With acoustic guitars, the best are from the '30s to the '60s, when they were using more of the Brazilian rosewoods. With microphones, what they were doing in the '40s, '50s, and '60s was incredible. It is, in general, better than what is being done today...the only hang-up was the multi-track machines available; then, it was either a lack of or not good-enough quality machines."

Today, high-resolution track counts are essentially infinite while recordists continue to seek classic tones, signal chains and microphones—or their closest software emulations or essences. The commonalities of these studio essentials, despite their users' wide-ranging styles and techniques, are revealing.

### CLASSIC COMPRESSION TONES + PROVEN MICS

"I don't bring a whole bunch of kit with me," began the late, great mixer Mike Shipley, in a 2007 interview about his location mixing work on Anberlin's modern and sharp-sounding *Cities* album. "Most of what I do bring is outboard compression. I really don't bring effects; I have effects in Pro Tools that I'm very fond of. But it's always worth bringing my

Crane Song STC-8, two Gates Sta-Levels, a couple of Empirical Labs Distressors and one Fatso, a Crane Song HEDD converter—I love all that Dave Hill stuff—the SSL stereo compressor, an RCA BA-6A limiter and the SPL Transient Designer. As you can see, it's all compression besides the SPL; nothing beats analog compression. I just love what the warmth of Sta-Levels and what they do for the bottom end of bass and vocals; I haven't found anything else quite like it yet, software or hardware."

Dave Hill's Crane Song Phoenix, an analog tape emulator plug-in, was one of Shipley's favorites—an example he shared as "hardware-rivaling software" only because it so closely matches sought-after tones of the past. "Plug-ins like the Phoenix are indispensable in Pro Tools land. It's amazing how that plug-in has the right kind of harmonics, and just the right amount of depth for a thin, Pro Tools-y sound."

In raving about his favorite gear, Nashville engineering legend Billy Sherrill shared his signal chain found on the vocal tracks of early Kenny Chesney hits—a sound that still influences today's burgeoning Country superstars. "Since our first microphone shootout with Kenny, we've used an old Neumann U 47 Tube, API 512 pre-amp, and (Teletronix) LA-2A compressor; that's been the vocal chain from the get-go. It sounds good, so we stuck with it. I have a specific U 47 that I rent; we use that same microphone every time."



Carl Glanville recalled recording vocals for U2's hit "Vertigo" on a regular handheld SM58 microphone.

Tracking engineer Mike Plotnikoff notes that he uses the Fairchild 760 "quite a bit," as he discussed his work with Papa Roach, Halestorm, and other classic-tinged hard rockers. "Of course I like the LA-2A and Distressor quite a bit, plus the UREI 1176, even the dbx 160."

Narrowing the field via shootouts, Plotnikoff often finds his vocal chain via a select few legendary models. "I usually try the Telefunken ELA M 251, Neumann U 47 and a Shure SM7; the Shure always sounds good on vocals. After one pass each, we know what works. It's often the ELA M 251, but sometimes it's a little too clean and bright. When the vocalist doesn't have a very crisp voice, we'll use the AKG C12. If too bright, we'll use a U 47. We'll go through a chain of different mics." Coupled with a Neve preamp and dbx 160 or LA-2A compression, "we'll find what works."

### EXPENSE IS NO OBJECT AT THE TOP

Producer/engineer Howard Benson is admittedly less nostalgic in his tonal pursuits, often relying more on the \$10,000 Sony C-800G vocal microphone—ideal for his vocal-centric clients such as Daughtry. "It's a great pop vocal mic with a lot of top end and brightness," he explains. "A lot of rock artists sing through U 87s, U 47s, and C12s, but I like mics made for vocals; I want the attack and detail. I know [mixers] Chris Lord-Alge, Tom Lord-Alge and Andy Wallace well; when these [large-budget releases] are mixed, they go for the sibilance, so I give it to them and they don't have to EQ it in."

Meanwhile engineer Carl Glanville—reflecting on his contributions to U2's *How To Dismantle An Atomic Bomb*—made a point to illustrate how simple it all can be, noting the gear-based irony of tracking vocals with vocalist Bono and subsequently mixing the hit single "Vertigo."

"We did all the vocals with a handheld SM58," Glanville explained. "It would just be that into one of the desk pres with EQ plus an LA-2A compressor, then straight to tape. Bono would always sing in front of the speakers in the control room. He knows how to work a microphone so well, which made recording very easy in that regard."

"The other great thing about the 'Vertigo' mix is that it's completely manual, no automation," Glanville continues. "It was just Steve [Lillywhite] and myself sitting at the desk. He said, 'Oh, it's just 24 tracks. We can do this without a computer.' Steve did the drums and guitars; I did bass, the vocals, the vocal effects, and one other guitar that plays on the outro of the song. It's just four hands. If one of us made a mistake, the great thing about Pro Tools is that we could rewind a little bit and just drop in as we printed mixes. It was a great mix of new and old technology. Every time I hear the song now, I can see us doing our moves, and it sounds alive."



## HEADWORN MICROPHONES

Optimal for vocal and spoken word applications



Omnidirectional microphones available with a choice of four connectors. Compatible with most popular wireless systems.



[vu-gear.com](http://vu-gear.com)

Engineered To Perform • Built To Last

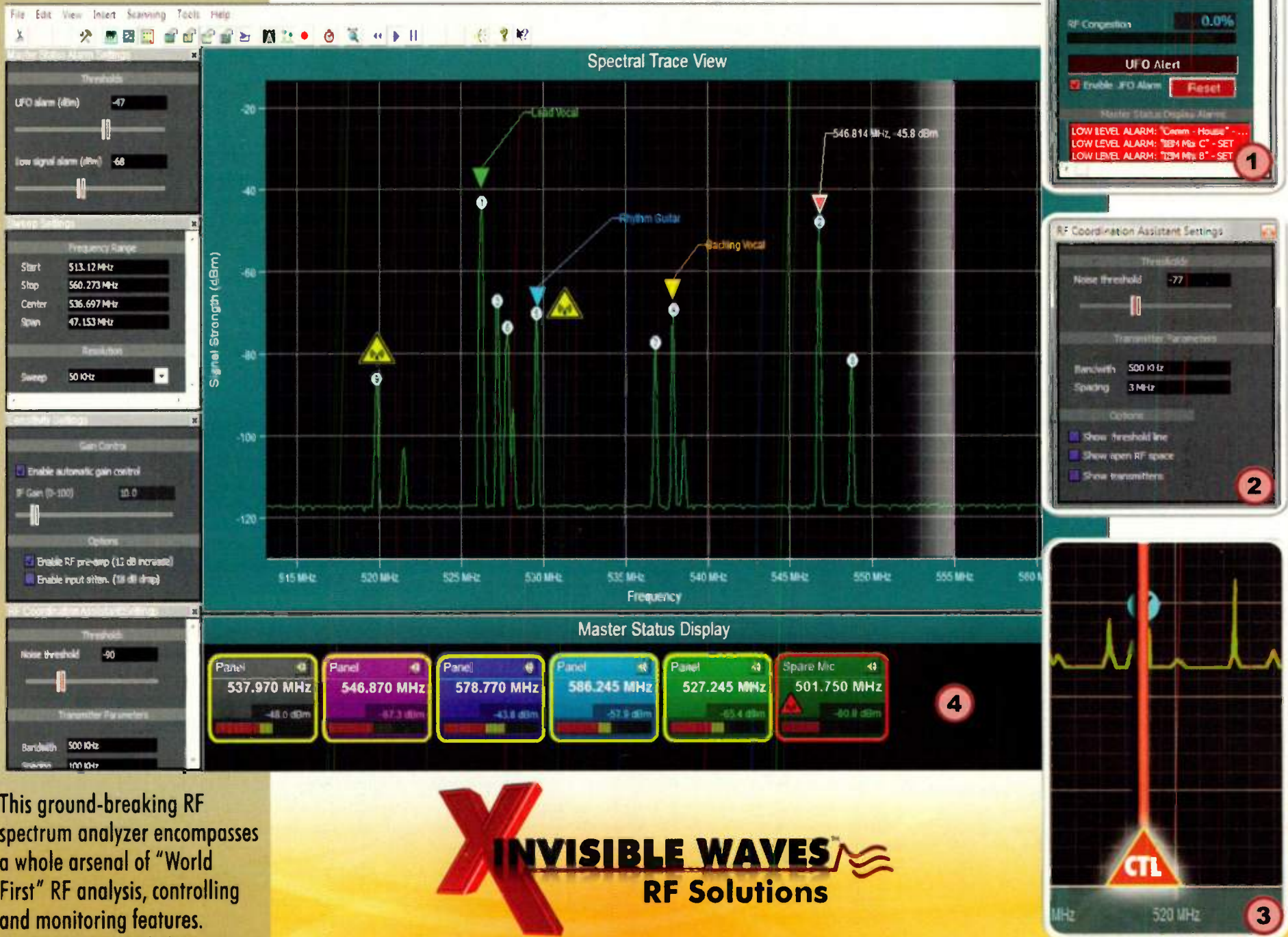
WRH



# Wireless Interference?

...we have the solutions

## Solution #1: the RF Command Center



This ground-breaking RF spectrum analyzer encompasses a whole arsenal of "World First" RF analysis, controlling and monitoring features. Applications include live events such as concerts, theatre, worship and corporate events, as well as AV integration and event frequency coordination. In the past few years the RF Command Center has been used with great success on countless major tours and events.



**UFO Alert™** ("Unidentified Frequency Object") **1** flashes to indicate that an uncatalogued, rogue transmission has entered your RF spectrum. UFO warnings appear in several places including the Spectral Trace View along with an audible alarm output. The **RF Coordinator™** **2** will calculate all potential open, usable RF space, based upon the user's specifications. The user settings include a threshold level, allowable bandwidth for each potential transmitter and the desired transmitter frequency spacing. Use the **3 CTL™** (Click-to-Listen) tuning bar to listen-in to the transmitted audio signal. Great for identifying transmitters, interference, and audio distortion. **Master Status Display** **4** allows the independent and 'quick-glance' monitoring of up to 100 RF channels. Monitoring include Low-Level Alerts, custom naming and color coding and instant audio listening.

Go to our web site to learn about our other RF wireless interference solutions!

678-714-2000

www.KaltmanCreationsLLC.com

Kaltman Creations LLC  
The RF Experts





Jean Mullor

A new CEO has been appointed to lead French loudspeaker manufacturer Nexo: **Jean Mullor**, who was most recently the MD of Yamaha Music Europe's

French subsidiary where he oversaw domestic distribution of musical instruments, commercial audio products, audio video products and music schools network development. Starting out as a lawyer, Mullor moved from American multinational oil and gas corporation Mobil to Yamaha, joining the French branch in 1992, where over the years, he gained experience in HR, logistics, finance, sales and marketing.

In a statement, Mullor said taking the CEO position was "a remarkable opportunity to join a company that has a 30-year record of technical achievement and an industry-leading reputation. With its flagship technology making inroads at the very top of the international market, and a slate of new products scheduled for release, these are exciting times for NEXO, and I'm looking forward to being part of its talented team."

d&b audiotechnik has appointed **Sabina Berloff** as Director of Marketing. Since August, she has been responsible for global marketing and product management, with the aim of further expanding brand awareness, developing new markets and acceler-



Sabina Berloff

ating the growth of the company. Berloff is part of the international management team around CEO Amnon Harman.

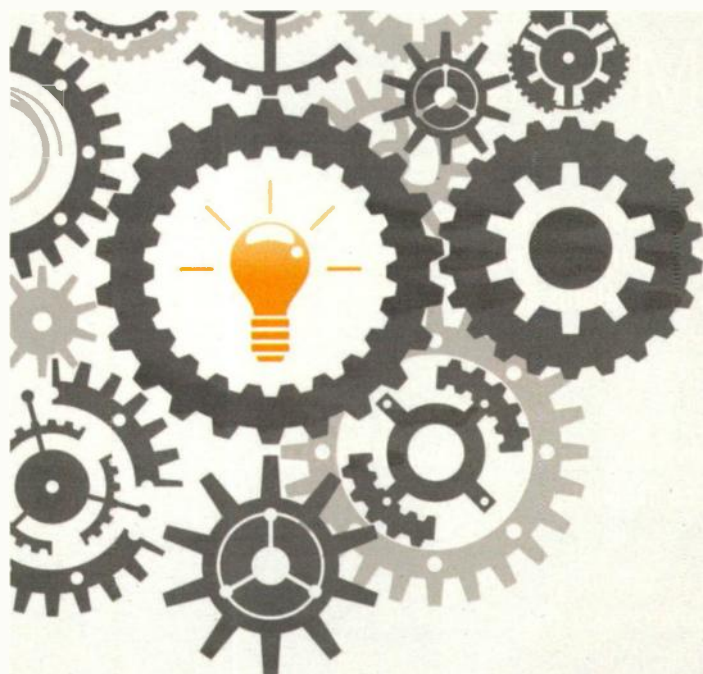
Experienced in marketing of international businesses, Berloff holds an MBA in marketing and management, and her background includes aligning marketing and sales departments with a focus on global growth strategies. She has previously held positions at multinational companies such as IBM, GE, Informix Databases, Konica Minolta Business Solutions and Kapsch CarrierCom AG.



Adam Riley

Guitar Center Professional (GC Pro), the outside sales division of Guitar Center that focuses on the needs of professional users, has appointed **Adam Riley** to the newly created position of Marketing Manager, GC Pro. In his new position, Riley will be responsible for developing and implementing a marketing plan to increase overall brand visibility by utilizing new, progressive marketing tools with a special focus on web, print, social media and event-based initiatives.

Riley holds a degree in art and media design from Jefferson College,



**500 Product Lines. 1 Solution.**

**PROAUDIO**  
smart sound solutions

proaudio.com · (800) 433-2105

## 60SECONDS



**Chris Dauray**  
sE Microphones

**Q: What is your new position, and what does it entail?**

**A:** In addition to my brand management for Rupert Neve Designs, I am now the global Brand Manager for sE Electronics International. My job is to help guide the brand's development and positioning. Essentially, this means I'm involved anywhere the sE

logo shows up—this means marketing, advertising, social media channels, product development and any external communications. I try to make sure every little move takes the brand in the right direction.

**Q: How has your background prepared you for your new role?**

**A:** After a formal education in music performance and recording, I spent five-plus years working in every department at Manley Labs—building mics, testing outboard, writing manuals, making ads, training dealers, everything. I learned to love seeing the whole process through from start to finish, and figured out how to tell a company's story in a compelling and transparent way.

From there, I went on to run marketing for Rupert Neve Designs, and for Fingerprint Audio, sE's US distributor. Over the last three years, I became a big fan of sE's gear. When they asked me for help guiding the brand in a new direction, I was thrilled to get on board.

**Q: What new marketing initiatives are we likely to see from the company?**

**A:** Firstly, I think people these days are extremely sensitive to marketing, and are acutely aware of when they're being "sold to." As a consumer, I don't like it, and I don't expect my brands' clients to like it either. I like to engage clients directly, with honesty and transparency, providing a window inside the company so they really feel they're part of something exciting, not just buying a product.

Secondly, I like focus. For both RND and sE, we will focus on what each brand does best—not the weaknesses of other companies, or mass-market "me-too" products. How do we differentiate? What makes us exceptional? We focus on this, without being "salesy."

**Q: What are your short- and long-term goals?**

**A:** Short-term: evaluate and clarify company messaging. Update websites, update all imagery. Start fresh, keeping only the elements that have been proven effective and serve only to help achieve overall company goals.

Long-term: above all else, consistency. Stick with the message and make our fans happy. Over time, this builds trust, loyalty and recognition, which can't be bought with gimmicks and flash sales.

**Q: What is the greatest challenge that you face?**

**A:** We need to realign the market's perception of what it means for sE to be a "Chinese microphone company." That phrase is so distasteful to so many, but the reality is that sE is in Shanghai because of their owner, an immensely driven and talented Chinese-American. He's proud of his company. It's not like he put the factory in China to exploit the labor force; he put it there because that's who he is. They still use proven, old-school manufacturing methods just like in the "glory days" of European mic manufacturing. We need to tell that story properly.

Missouri, and a degree in Advertising and Marketing Communications, along with another minor in Interactive Media, from Webster University

of St. Louis. He has worked in multimedia design, web development, and in marketing in the power sports industry.

## soundREPS

■ Renkus-Heinz has named PacificAV its new representative for the Southern California and Southern Nevada regions.

■ MI market audio equipment distributor ABACA Audio Distribution has announced it will represent European audio equipment developer Prodipe as its exclusive distributor/representative in North America.

■ Professional Sound Services is opening a new location in Ft. Lauderdale, FL, providing the Southern Florida market with professional sound solutions to the large and growing number of film, video and sound productions in the area and fill the current market void to offer a one-stop shopping approach for sound mixers.



dealers wanted



Prism Media Products, Inc.  
US distributor's of PrismSound & Maselec products are looking to expand their dealer network. Anyone interested in arranging a meeting at **NAMM** in January, please contact Janice Norton at: [janice@prismmpi.com](mailto:janice@prismmpi.com) or visit us at **Booth #7120** at the show.

equipment for sale



**Free Catalog**  
**Over 18,000**  
**Audio/Video Products**

Whether your need is for replacement parts or you are a custom builder, Parts Express is the best source for pro loudspeaker components, crossover parts, wire and cable, and cabinet hardware—in stock and ready to ship right now.




Speakers & Components  
Connectors, Wire & Cables  
Amps, Mixers & Microphones  
Racks, Cases & Hardware

Visit us online today for your **FREE Catalog!** [parts-express.com/psn](http://parts-express.com/psn) or call 1-800-338-0531

studio furnishings



furniture that puts your gear right at your fingertips

**ARGOSY**  
[www.ArgosyConsole.com](http://www.ArgosyConsole.com)

acoustical products



**Acoustics First**  
Toll Free Number **888-765-2900**  
**SOUND AND NOISE CONTROL MATERIALS**  
Web Site [www.acousticsfirst.com](http://www.acousticsfirst.com)



**JOSEPHSON** C550H Omni Condenser Microphone  
for calibrated system measurements

**Josephson Engineering**  
[www.josephson.com](http://www.josephson.com)

Even small ads work



Pro-Audio Lighting Video

**800.203.5611**  
**WWW.SOUNDPRO.COM**  
**YOUR DIRECT SOURCE FOR 247 PRODUCT LINES**








career marketplace



**New Year, New Opportunities**

Contact us if **you** want to make it a great one.

Our clients are based throughout the USA, Europe and Asia and engage with us to identify new sales, marketing and engineering talent - from graduates through to senior business managers with relevant experience, who are looking to progress or develop their careers within the industry.

|  |               |
|--|---------------|
| Senior Head of Business Marketing - Pro and Consumer Audio; USA East       | USD 180-220k+ |
| Key Account Manager - Sound Reinforcement; USA North East                  | USD 120-140k+ |
| Design Services Supervisor - Sound Reinforcement/Installed Sound; USA West | USD 75-85k    |
| Sales & Business Development - Event Services; USA North East              | USD 70-150k+  |

Visit the website or contact us at the **NAMM** show to discuss your current situation and goals in confidence.

Experienced industry professionals helping to develop careers and finding the right faces for the job.

web : [www.interfacio.com](http://www.interfacio.com)  
email : [applications@interfacio.com](mailto:applications@interfacio.com)  
telephone : Intl. +44 (0) 20 8986 5002 USA 1-800 578 0144  
Facebook.com/page.interfacio or follow us @interfacio

global media technology recruitment



**FREE!**

**STAY ONE STEP AHEAD**  
with NewBay Media's **FREE** Electronic Newsletters  
**ALL ENTERTAINMENT TECHNOLOGY TOPICS COVERED**

**ONE-STOP SHOPPING:** Simply visit [www.nbmedia.com](http://www.nbmedia.com) and click on the "Email Newsletters" link. Then choose as many newsletters you need.  
**INFORMATION GOES STRAIGHT TO YOU:** Why waste your valuable time searching for the news and information that affects your industry when it can arrive right in your e-mail.

**Sign-up today**  
**by visiting**  
[www.nbmedia.com](http://www.nbmedia.com)



## Gaining Strengths

BRIAN BRADLEY, GM,  
LOUDSPEAKER, MICROPHONE  
AND HEADPHONE STRATEGIC  
BUSINESS UNIT, JBL  
PROFESSIONAL

BY KELLEIGH WELCH

What first attracted Bryan Bradley to JBL Professional was the company's legacy within the industry—not just from a technology standpoint, but also for its participation in some of the most historic moments in the past 100 years.

“No loudspeaker manufacturer has as rich and storied a history as JBL,” Bradley commented. “James B. Lansing helped develop the first loudspeaker for motion picture use; JBL developed the first two-way studio monitor; we were used for the sound reinforcement system at Woodstock, when the concept of live sound was still in its infancy. It goes on and on.”

Bradley currently runs the Loudspeaker, Microphone and Headphone Strategic Business unit, a position he's held since January 2013. In July 2014, AKG's microphone and headphone brands were folded into the same group, placing them under Bradley's leadership.

Before joining the Harman team, Bradley was COO of Alfred Music for four years, and spent eight years prior to that climbing the ladder at Guitar Center. “I believe my experience in retail gives me a unique point

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

Bradley also pointed out that his retail experience has helped him see the company's image from the buyer's perspective, and he brought that into his marketing strategy within JBL. “I felt the market perception of JBL was not a true reflection of the company,” Bradley explained. “From Day One, I

viewed an opportunity to tell our unique stories, to take advantage of the tremendous people that comprise JBL, and truly humanize the brand—not only through effective marketing, but also through a return to our commitment of building and preserving relationships through dedicated service and support.”

Customer support also plays a key role in Bradley's strategy. “I think over the past two years, we've greatly improved our support for end users and dealers, as well as our sales reps and distributors. That said, I still see opportunity for improvement. I firmly believe we're the leaders in the industry when it comes to technology innovation; there's no reason why we can't be the best when it comes to support as well.”

Internally, Bradley said what makes working with JBL great is the people. “We have a dedicated sales team filled



Brian Bradley

with people who eat, sleep and drink loudspeakers. They're directly responsible for working with customers to ensure they have the very best loudspeakers to suit each application and/or budget,” he said. “We're strong believers in the pro audio, systems integration and MI channels, and we work hard to ensure our customers get the support they need.”

When Bradley started at JBL, he said the company had recently developed the M2 Master Reference Monitor, which incorporates JBL's

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.

of view on how brands are perceived in the marketplace, and I've tried to use this perspective to effectively identify our strengths and weaknesses and develop programs accordingly,” he said.



# Tozzoli

(continued from page 29)

now fully understand if you push up the Input above 12 o'clock (depending on the version), you can really get aggressive with the hi-hats and cymbals by pushing the Release all the way up. But if you pull the Release back a bit, it softens up the 'grab' on the high frequencies. So now when I'm tracking in a good room with some 1176 hardware, I know exactly what to do in order to get what I want out of it. I can even hear the different grit and distortion characteristics of the various versions, be they Rev A, AE, or Rev E. This all came from spending time with the software versions of each model on literally hundreds of tracks.

The interesting thing I also noticed about the software is that it sounds the same every time. With hardware, it literally can change depending on the day, the temperature, if it's warmed up or not, or of course, if it's in good working condition. Sometimes, there is nothing like turning that Input knob and hearing the pots crackle with age. This is es-

pecially true with sensitive hardware like EP-34 Echoplex or AMS or Lexicon reverbs. I have to say I didn't use the hardware that much because for the most part, those weren't working that well in the studios. But now, I use them all constantly. And for that matter, I'm using multiple versions of them with different settings in the same session. Also, some of the software has features (such as tempo sync and/or low cut filters) that the original hardware doesn't have—making them even more useful.

I'm not actually saying one or the other sounds better; software can sound different from its hardware inspiration, even as the hardware can vary sonically from unit to unit. I have Manley Massive Passive

onscreen right now, and the hardware version off to my right in the rack. They each have their thing that makes mid-range sing (how I prefer to use it). Honestly, I tend to turn to the software more often simply because it's easier. Does the software please the clients as much to hear and turn knobs on? Probably not. But luckily, I get to output most of my work without clients (yea!), so who cares, as long as it rocks?

Another thing I noticed is that when tweaking software, you are primarily sitting in the sweet spot when you do it. It tends to be onscreen right in front of you, helping you make proper decisions easily. With hardware, it may be off in a rack to your side, behind you or who knows where. I

noticed that last time tweaking 1176 settings on a hardware version. I got up out of the chair, knelt down and started to turn knobs. I was looking out the window with one ear facing the speakers. Probably not the best way to get the optimal sound. It's a small, maybe irrelevant detail, but it definitely took me out of the flow of what I was doing. I had to get my ears set back to the mix spot, listen, then go make more adjustments.

Hopefully, you're all in the same position as me. The software helps you learn the hardware, and the hardware helps you learn the software. No matter what, they should all work together effortlessly with one primary goal—to help you deliver the best product possible.



Learning software emulations of outboard gear like Universal Audio's take on the Manley Massive Passive stereo EQ, can help users master the original hardware versions—and vice-versa.

## advertiserINDEX

| ADVERTISER                   | PAGE | ADVERTISER              | PAGE  |
|------------------------------|------|-------------------------|-------|
| Acoustics First              | 8    | KRK Systems             | 25    |
| Applied Electronics          | 1,49 | Lectrosonics            | 12    |
| Argosy Consoles              | 6    | Mackie                  | 13    |
| Avid Technology              | 19   | Meyer Sound             | 60    |
| B & H                        | 59   | NAMM                    | 53    |
| D&B Audiotechnik             | 45   | Neutrik USA             | 32    |
| Dale Pro Audio               | 33   | ProAudio.com            | 54    |
| DBX                          | 15   | QSC                     | 27    |
| DPA Microphones              | 23   | Radial Engineering      | 21    |
| Eventide                     | 9,30 | Renkus-Heinz            | 22    |
| Full Compass                 | 20   | Riedel Communications   | 39    |
| Galaxy Audio                 | 47   | Shure                   | 7     |
| GC Pro                       | 17   | Sweetwater              | 10-11 |
| Genelec                      | 4    | TC Group                | 18    |
| Harrison Consoles            | 29   | Telefunken              | 14    |
| IsoAcoustics Inc.            | 34   | VU                      | 50    |
| Italian Speakers             | 46   | Yamaha Commercial Audio | 2,3   |
| Kaltman Creations            | 51   | Yorkville               | 43    |
| Konig & Meyer/Connolly Music | 16   |                         |       |

Pro Sound News (ISSN# 0164-6338) is published monthly by NewBay Media, LLC., 28 E 28th Street - 12th Fl, New York, NY 10016. Pro Sound News is available without charge in the USA to qualified professionals engaged in sound recording, broadcast, video recording, audio-visual, sound reinforcement and associated business. The publisher reserves the right to refuse applications and restrict free copies sent to a company or organization. For subscription information or to email customer service, please visit our online Subscribe Center at [www.MyPSNmag.com](http://www.MyPSNmag.com). Reprints available upon request, call our Reprint Coordinator at Wright's Reprints: 877-652-5295. Periodical postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to: Pro Sound News, P.O. Box 234, Lowell, MA 01853. Please allow 6-8 weeks for address changes to take effect. © Copyright 2015 by NewBay Media, LLC. PRINTED IN USA.

## companyINDEX

The following companies are mentioned in this edition of *Pro Sound News*. Use this index to reference your copy.

Ableton...52; Acme Audio...26; ADAM...22; AEA...26; AKG...26, 27, 50, 56; Allen & Heath...41; Altec...27; AMS...27, 57; API...26, 27, 44, 45, 50, 52; Apogee...34, 39; Apple...24, 29, 34, 35, 37, 39, 40, 41, 42, 46, 52; ATC...28, 52; Atomic Instrument...24; AT&T...8; Audinate...18, 42, 44; Audio-Technica...37; Audix...42, 45; Avid...5, 36, 37, 40, 42, 45, 50, 52; Barefoot Audio...28; Beyerdynamic...27; Blue Microphones...26, 37; Bose...44, 45; Bryston...28; Cakewalk...29; Cathedral Pipes...26; CME...37; Community Professional Loudspeakers...18; Corning...36; Crane Song...50; Crown...46; Dangerous Music...26; d&b audiotechnik...42, 54; DB Technologies...50; dbx...41, 50; DiGiCo...42; Dolby...32, 52; DPA Microphones...31, 35; Dynacord...18, 27; Earthworks...45; ELA...50; Electro-Voice...26, 27, 57; EMI...26; Emotiva Pro...38, 39; Empirical Labs...50; Etymotic Research Inc...38, 39; Eventide...27; Fairchild...26, 27, 50; Flickinger...26, 27; Focal...37; Galaxy Audio...41; Garritan...36; Gates...26, 50; GC Pro...42, 54; Gefell...27; GML...24, 27; Grund Audio Design...22; Grundorf Corporation...22; Gruv Gear...37; GE...54; Harman Pro Group...46, 54, 56; Guitar Center...1, 52, 56; Harrison...32; Heil...45; HK Audio...41; IBM...54; Informix Databases...54; Ingram Engineering...26; Inward Connections...26; IsoAcoustics...40; JBL...26, 32, 46, 56; JH Audio...45; JoeCo...47; Kapsch Carrier Com AG...54; Konica Minolta Business Solutions...54; Kush Audio...26; L-Acoustics...42, 47; Lectrosonics...31; Lexicon...27, 28, 57; Mackie...42, 46; Manley Labs...54, 57; Masque Sound...42; Mercury Audio...26; Metric Halo...40; Meyer Sound Labs...32; Microsoft...29, 37, 39, 40, 52; Midas...42, 47; Miktek...26; MI Market Audio...54; MOTU...40; MXR...27; NEP...31, 33; Neve...24, 26, 30, 50, 52; Neumann...27, 35, 50; Neutrik...1, 5, 23; Nuendo...37; Phase Linear...28; PMC...40; PreSonus...29, 37, 41; Professional Sound Services...54; Pultec...27, 47; Purple Audio...26; PWS...5; QSC...1, 35; RAD...41; Radial...47; Rational Acoustics...42; RCA...26, 27, 50, 58; Renkus-Heinz...54; Retro Instruments...26; RF Venue...41; RODE Mics...; Roland...47; Royer...26; RPM...42, 47; Rupert Neve Designs...54; Schoeps...27; sE Microphones...54; Sennheiser...27, 42, 45, 46, 47; Shure...26, 27, 40, 42, 45, 50; Sonoma WireWorks...37; Sonnet Technologies...40; Sony...50; SPL...50; SSL...8, 18, 24, 26, 28, 30, 50, 52; STC...27; Steinberg...40; Studer...24; Symetrix...42; Tannoy...28; TC Helicon...35; Telefunken...27, 50; Teletronix...50; Tracktion...5; Trident...27; Tube Tech...26; Universal Audio...26, 27, 29, 57; Vintage King...24, 30, 52; Waves...29, 40, 42, 44, 45, 47; WorxAudio...41; Yamaha...28, 31, 36, 42, 45, 54



# The Human Touch

BY JACQUES SONYIEUX

This month, two-time Juno award winner Dan Mangan + Blacksmith release their new album, *Club Meds*. Working alongside longtime producer Colin Stewart (Ladyhawk, Black Mountain), the album takes a deep dive from both a lyrical and atmospheric perspective, combining layers of acoustic and synthetic instrumentation with poignant conceptual themes. *Pro Sound News* spoke to Mangan about the creative process that ultimately led him to *Club Meds*.

**ON REMAINING IN STUDIO MODE:**

Right before we went into the studio to start working on *Club Meds*, we had just put the finishing touches on a movie soundtrack [*Hector and the Search for Happiness*]. That was a really intense project that took many months and many long days. So in a sense, I was kind of in ‘studio mode’ already before we went in. I was already spending hours with no sunlight, and my studio chops were already firing well before we began working on the record.

**ON MARRYING THE ACOUSTIC AND SYNTHETIC:**

I feel that each record makes the previous one seem amateurish by comparison. Musically, this record was very collaborative, more so than any other I’ve ever done before. Kenton, Gordon and Johnny were a really crucial part of the song formation, and the crafting of how each song

felt. Sonically, there was a nice marriage of both acoustic and synthetic instruments. All the bed tracks were acoustic tracks: very human and imperfect. Then there was a process of two or three months that consisted of layering more synthetic sounds—things that came from MIDI sequencers, synthesizers or drum machines. The basic rule was that we could only use synthetic sounds that still elicited a recognizable emotional response. So we wanted to include the electronic world in the record, but not let it be dictated by it. It was nice to have the electronics be more of an afterthought rather than the infrastructure.

**ON TURNING CONCEPTS INTO SONGS:**

Lyricaly, I feel like this is a much more focused record than before—I had more to say on a political scale. I like the idea of writing about hu-



NORMAN WONG

Left to right: Gordon Grdina, John Walsh, Dan Mangan and Kenton Loewen

manity in a timeless kind of fashion, and believe the quagmire of human jealousy, greed, love, beauty and everything else that existed for Shakespeare still exists for us now. I became more articulate in being able to process these kinds of ideas and concepts, and bring them into song form. I think having a kid also raised the stakes for me: It made me softer, and in other ways, it made me sharper and more concerned about the world that my family lives in.

**ON WORKING IN THE WAREHOUSE:**

We recorded at the Warehouse, which is a beautiful studio here in Vancouver that is kind of renowned as being Bryan Adams’ baby. In the modern day when many large commercial facilities seem to be having a hard time making money, this place has been a staple and has always been around. That’s where we recorded the basic tracks for the guitars, drums and bass. On about three of the songs, the vocal take was recorded through a classic RCA 44 ribbon mic, with no overdubbing or editing. There are other vocals on the record that that took 15 takes of cutting and piecing things together though, so there were some struggles too. After we did the band takes, which basically consisted of the four of us as a quartet on the floor at The Warehouse, we did a lot of the overdubs in my own humble rehearsal space/studio.

Then we spent two weeks at Colin Stewart’s [co-producer] studio, called The Hive. Colin and I work really well together and almost finish each other’s thoughts. We also have a very similar sonic palette: generally, if something is hitting him in the gut, it is hitting me in the gut too, so it makes our working relationship very easy. Except for the three songs with complete vocal takes that we did at The Warehouse, all of the vocals were recorded at his studio, and they were the very last things we recorded.

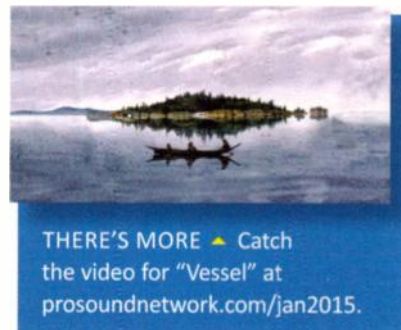
**ON CREATING “CACOPHONOUS NOISE:”**

I love the power of MIDI. The sounds that the companies are making are getting better and better. I will typically use MIDI to try to make new sounds that are completely unrecognizable. For example, at the end of “Vessel,” I took a classic contact Mellotron sax patch, which alone, sounded horrible. But then we ran it through a crystallizer and a whole bunch of Sound Toys until it became this crazy, cacophonous noise. We took whatever sonic input we had and just ran it through gear that we could twist knobs with, trying to introduce a performance element into whatever we were doing. This gets back to the whole marriage between the synthetic and the human, which ended up being an important part of this record.

**ON GETTING LOST WHILE MIXING:**

I find mixing to be excruciating at times and I always go through an existential crisis asking things like “Are we the kind of band that mixes vocals loud, or are we the kind of band that mixes quiet?” “Do we want big, huge rock drums or more subtle ones?” What I’ve decided about that whole process is that if you don’t go through these self-doubting challenges—and those moments that you feel lost and destroyed by the process—then you may not be trying hard enough. If everything happens too easily, something might be wrong.

Please send any tips or feedback to Jacques at: jacquessonyieux@gmail.com.



THERE’S MORE ▶ Catch the video for “Vessel” at [prosoundnetwork.com/jan2015](http://prosoundnetwork.com/jan2015).

MEGHAN KRAUSS

I’m an **AES** member. Are you?

Join me



**ALEJANDRO GOLDSTEIN**  
Live & Studio Sound Engineer  
Member of the Audio Engineering Society

[www.aes.org/join](http://www.aes.org/join)



- A Native Instruments Maschine Studio Groove
- B sE Munro Egg 150 Studio Monitors
- C Behringer X32 40-Channel, Digital Mixer
- D Neumann TLM 102 Large-Diaphragm
- E Moog Minimoog Voyager Monophonic Synthesizer
- F Neumann TLM 107 Multi-Pattern Large Diaphragm
- G Universal Audio Apollo Quad Core
- H Apple 15.4" MacBook Pro Notebook



## B&H Delivers in Every Way

FREE Expedited Shipping on orders over \$49\*

- B&H is the world's leading Pro Audio equipment retailer
- The largest inventory
  - Top industry experts on staff
  - The most helpful customer service anywhere

Visit [BandH.com](http://BandH.com) the ultimate resource for all your Pro Audio needs  
Be informed with [B&H.com/Explora](http://B&H.com/Explora)'s huge collection of Pro Audio educational content:

- Articles • Tutorials • Trends • Reviews • Tips • Interviews
- Newly-Release Gear Profiles • Recorded Live Events • Streaming Videos



420 Ninth Ave, NYC  
Visit Our SuperStore

800-875-8508  
Speak to a Sales Associate or consult with Live Chat online

[www.BandH.com](http://www.BandH.com)  
Shop conveniently online

\*Applies to In-Stock Items. Some restrictions may apply. See website for details.



# BUILT TO POWER METALLICA



## MJF-210

low-profile high-power stage monitor

“ Meyer Sound delivered a smaller wedge while keeping the giant Metallica sound. ”

– James Hetfield, Metallica



[www.meyersound.com](http://www.meyersound.com)